STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 177144

TO: David Lukton **Location: REM/3B75/3C18** **Art Unit: 1654** **Case Serial Number: 10/626719**	**From: P. Sheppard** **Location: Remsen Building** **Phone: (571) 272-2529** **sheppard@uspto.gov**

Search Notes

64

ACCESS DB # 177144

PLEASE PRINT CLEARLY

SEARCH REQUEST FORM
(STIC)

Requestor's Name: David Lukton Examiner number: 71263 Date: 1/20/06

Art Unit: 1654 Phone number: 571-272-0952 Serial Number: 10-626719

Mail Box: 3-C-18 Examiner Rm: 3-B-75 Results format: paper

* * * * * * * *

Title: SHORT-WARP PEPTIDE DYE CONJUGATE AS CONTRAST AGENT FOR OPTICAL DIAGNOSTIC

Applicants: LICHA, KAI; BECKER, ANDREAS; SEMMLER, WOLFHARD; WIEDENMANN, BERTRAM; HESSENIUS, CARSTEN; VOLKMER-ENGERT, RUDOLF; SCHNEIDER-MERGNER, JENS

Earliest priority date: 4/9/99

* * * * * * * *

Applicants are claiming the compounds on the attached sheet.

R^1 = hydrogen or sulfonic acid;

R^2 = hydrogen or sulfonic acid;

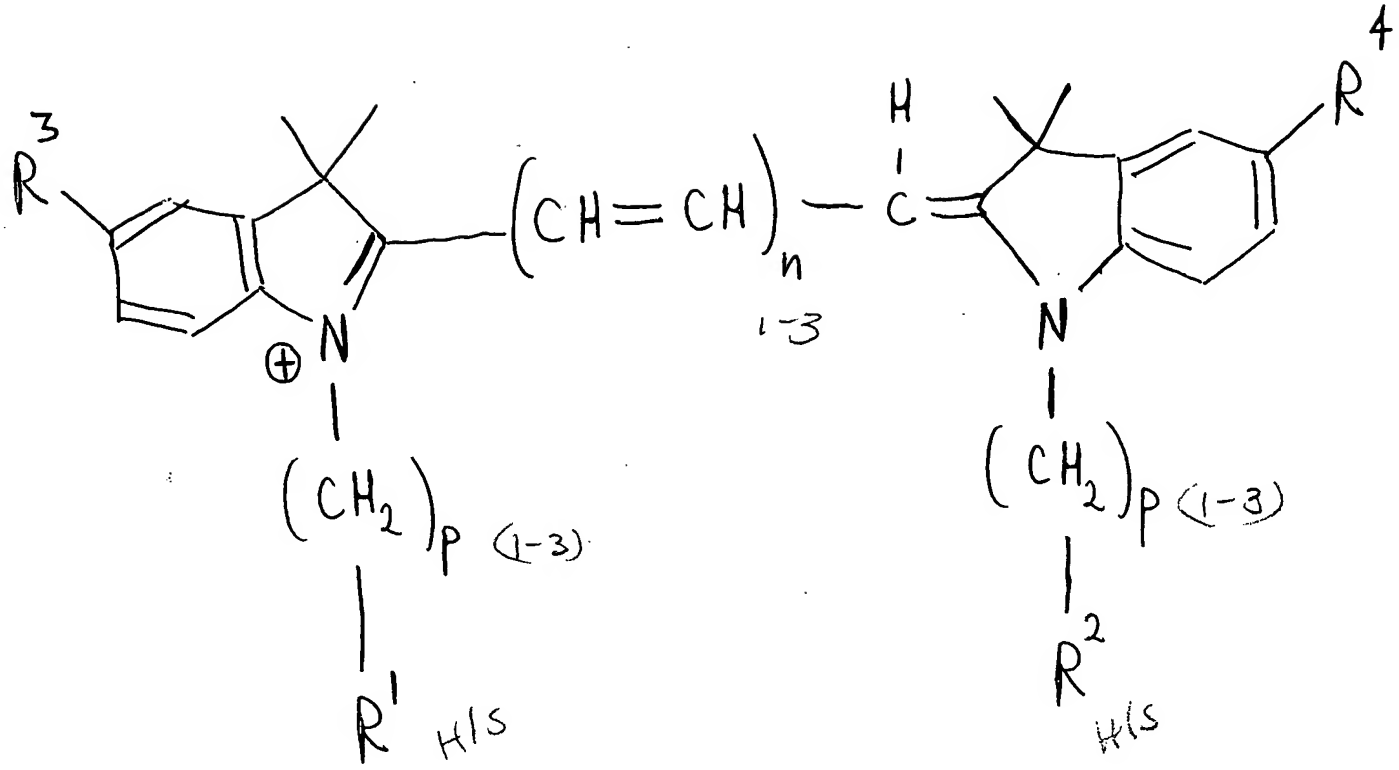
R^3 = anything;

R^4 = anything;

n = 1 - 3

p = 1 - 3

10/626 719



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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 21 Feb 2006  VOL 144 ISS 9
FILE LAST UPDATED: 20 Feb 2006  (20060220/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L3                  STR
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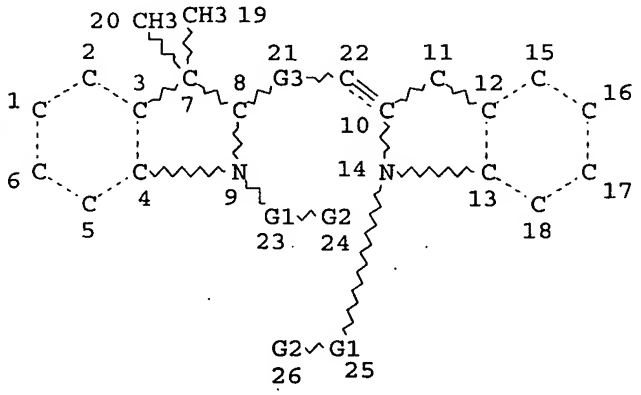

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  40
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STEREO ATTRIBUTES: NONE
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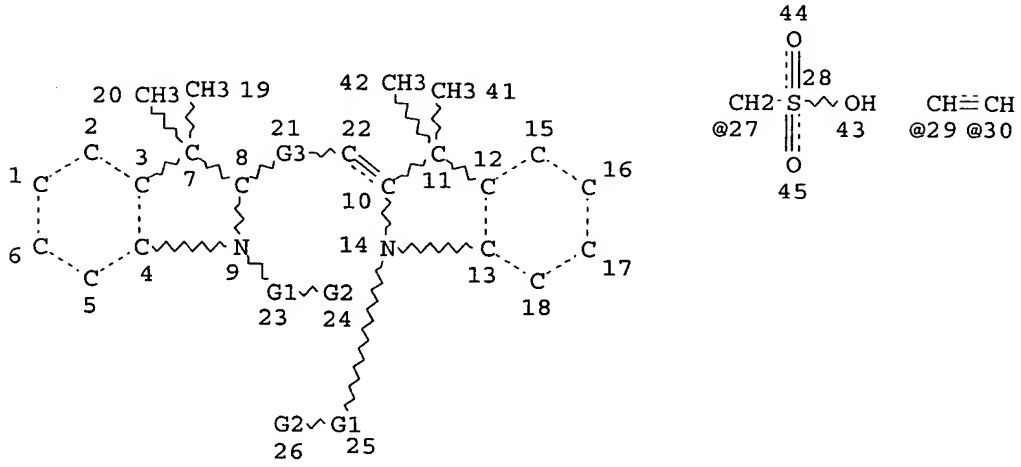
L16 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 45

STEREO ATTRIBUTES: NONE
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L19 SCR 2127 OR 2050 OR 2049 OR 2043 OR 1842
L20 302 SEA FILE=REGISTRY SUB=L17 SSS FUL L16 NOT L19
L21 138 SEA FILE=HCAPLUS ABB=ON PLU=ON L20
L22 100 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND PD=<APRIL 10, 1999
L23 84 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND DYE
L25 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 AND PEPTID?

=>
=>

=> d ibib abs hitstr l25 1-2

L25 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:391992 HCAPLUS
DOCUMENT NUMBER: 135:2542
TITLE: Fluorescence energy transfer in particles
INVENTOR(S): Buechler, Kenneth F.; Noar, Joseph Barry; Tadesse, Lema
PATENT ASSIGNEE(S): Biosite Diagnostics, Inc., USA

SOURCE: U.S., 30 pp., Cont.-in-part of U.S. Ser. No. 138,708, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 6238931	B1	20010529	US 1994-274534	19940712	
CA 2149419	AA	19950330	CA 1994-2149419	19940923	<--
WO 9508772	A1	19950330	WO 1994-US10826	19940923	<--
W: AU, CA, JP					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
AU 9480112	A1	19950410	AU 1994-80112	19940923	<--
EP 670041	A1	19950906	EP 1994-931287	19940923	<--
EP 670041	B1	20020130			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP 08503994	T2	19960430	JP 1994-509970	19940923	<--
US 5763189	A	19980609	US 1994-311098	19940923	<--
US 6251687	B1	20010626	US 1995-409298	19950323	
AT 212721	E	20020215	AT 1994-931287	19950330	
US 5824799	A	19981020	US 1996-620597	19960322	<--
US 6964844	B1	20051115	US 1998-66255	19980424	
US 2002061602	A1	20020523	US 2001-776599	20010201	

PRIORITY APPLN. INFO.:

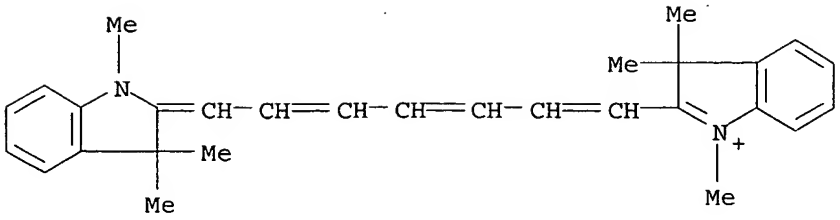
US 1993-126367	B2	19930924
US 1993-138708	B2	19931018
US 1994-274534	A	19940712
US 1994-311098	A2	19940923
WO 1994-US10826	W	19940923
US 1995-409298	A2	19950323
US 1995-409825	A2	19950323
US 1996-620597	A1	19960322
US 1998-66255	A2	19980424

AB Particles and methods for the detection or visualization of analytes using fluorescence energy transfer are disclosed. Particles comprising an energy donor as a first component and a fluorescent **dye** as a second component positioned in said particles at an energy exchanging distance from one another, wherein the two components have a Stokes shift of greater than or equal to 50 nm, said particle having bound on its surface, a protein, polypeptide, nucleic acid, nucleotide or protein containing ligand analog are disclosed and claimed. A fluorescence immunoassay for human chorionic gonadotropin (hCG) uses a conjugate of anti-hCG monoclonal antibody and latex particles containing 1,1'-dihexyl-3,3,3',3'-tetramethylindodicarbocyanine iodide and silicon 2,3-naphthalocyanine bis(dimethylvinylsilyloxide) (preparation given).

IT **47676-39-1D**, 1,1',3,3,3',3'-Hexamethylindotricarbocyanine, salts
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescence energy transfer in particles)

RN 47676-39-1 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:623505 HCAPLUS
DOCUMENT NUMBER: 124:4485
TITLE: Fluorescence energy transfer and intramolecular energy transfer in particles using novel compounds
INVENTOR(S): Buechler, Kenneth Francis; Noar, Joseph Barry; Tadesse, Lema
PATENT ASSIGNEE(S): Biosite Diagnostics Inc., USA
SOURCE: PCT Int. Appl., 138 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9508772	A1	19950330	WO 1994-US10826	19940923	<--
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RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
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CA 2149419	AA	19950330	CA 1994-2149419	19940923	<--
AU 9480112	A1	19950410	AU 1994-80112	19940923	<--
EP 670041	A1	19950906	EP 1994-931287	19940923	<--
EP 670041	B1	20020130			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP 08503994	T2	19960430	JP 1994-509970	19940923	<--
AT 212721	E	20020215	AT 1994-931287	19950330	
US 2002061602	A1	20020523	US 2001-776599	20010201	

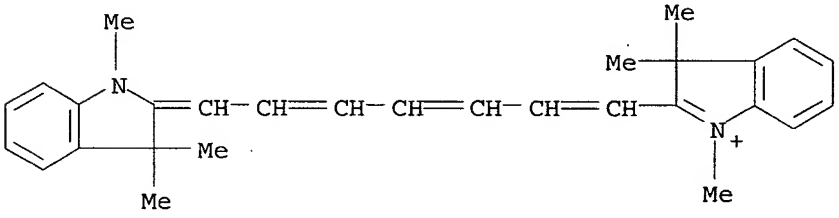
PRIORITY APPLN. INFO.:	US 1993-126367	A	19930924
	US 1993-138708	A	19931018
	US 1994-274534	A	19940712
	US 1994-311098	A2	19940923
	WO 1994-US10826	W	19940923
	US 1995-409298	A2	19950323
	US 1995-409825	B2	19950323
	US 1996-620597	A1	19960322
	US 1998-66255	A2	19980424

AB Particles and methods are disclosed for the detection or visualization of analytes, including nucleic acids by using fluorescence energy transfer or intramol. energy transfer. Particles comprising an energy donor as a first component and a fluorescent **dye** as a second component positioned in said particles at an energy exchanging distance from one another, wherein the two components have a Stokes shift of ≥50 nm, said particle having bound on its surface, a protein, polypeptide, nucleic acid, nucleotide or protein containing ligand analog are disclosed and

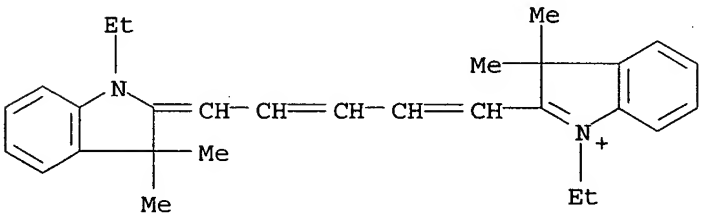
claimed. In addition, novel fluorescent **dyes** are described which exhibit intramol. energy transfer for use in labeling various mols., proteins, polypeptides, nucleotides and nucleic acids or incorporating into particles. Many novel phthalocyanine derivs. and hybrid phthalocyanine derivs. are disclosed and claimed. Such derivs. also may contain an electron transfer subunit. Axial ligands may be covalently bound to the metals contained in the hybrid phthalocyanine derivs. Numerous compds. capable of intramol. energy transfer as well as compds. for fluorescence energy transfer are claimed.

IT **47676-39-1DP**, salts **52754-39-9DP**, salts
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(fluorescence and intramol. energy transfer in particles for biochem. anal.)

RN 47676-39-1 HCAPLUS
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



RN 52754-39-9 HCAPLUS
CN 3H-Indolium, 1-ethyl-2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl- (9CI) (CA INDEX NAME)



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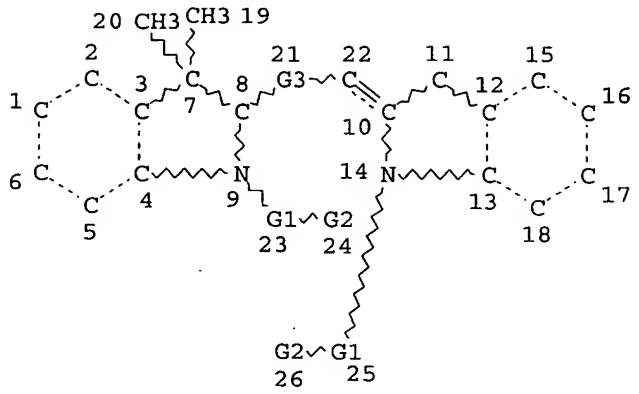

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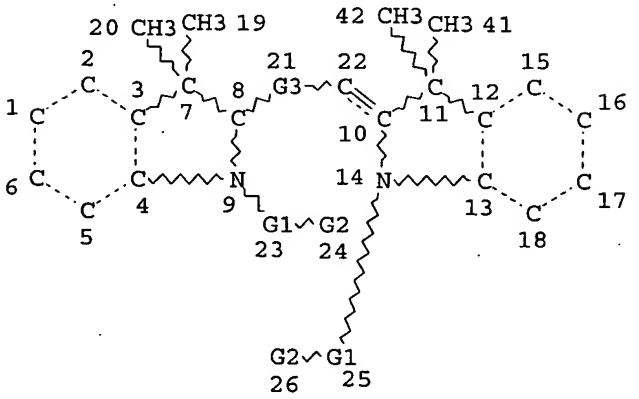

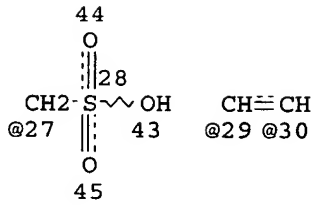

CH≡CH
@29 @30

CH≡CH-CH≡CH
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CH≡CH-CH≡CH-CH≡CH
@35 36 37 38 39 @40

REP G1=(0-2) CH2
VAR G2=CH3/27

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  45

STEREO ATTRIBUTES: NONE
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L19             SCR 2127 OR 2050 OR 2049 OR 2043 OR 1842
L20         302 SEA FILE=REGISTRY SUB=L17 SSS FUL L16 NOT L19
L21         138 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20
L22         100 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21 AND PD=<APRIL 10, 1999
L23          84 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND DYE
L25           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23 AND PEPTID?
L26        1319 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L20
L27        1984 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26
L28        1518 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND PD=<APRIL 10, 1999
L29           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND  (PROTEIN OR PEPTID?)(
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L30           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 NOT L25


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=>

=> d ibib abs hitstr l30 1-7

L30  ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2002:392193  HCAPLUS
DOCUMENT NUMBER:          136:356382
TITLE:                    Hybrid phthalocyanine derivatives and their uses
INVENTOR(S):              Buechler, Kenneth F.; Noar, Joseph B.; Tadesse, Lema
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 61 pp., Cont.-in-part of U.S.
                          Ser. No. 66,255.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   7
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
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     US 2002061602         A1    20020523    US 2001-776599          20010201
     US 6238931            B1    20010529    US 1994-274534          19940712
     WO 9508772            A1    19950330    WO 1994-US10826         19940923 <--
         W:  AU, CA, JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     US 5763189            A     19980609    US 1994-311098          19940923 <--
     US 6251687            B1    20010626    US 1995-409298          19950323
     US 5824799            A     19981020    US 1996-620597          19960322 <--
     US 6964844            B1    20051115    US 1998-66255           19980424
PRIORITY APPLN. INFO.:                       US 1993-126367      B2  19930924
                                             US 1993-138708      B2  19931018
                                             US 1994-274534      A2  19940712
                                             US 1994-311098      A2  19940923
                                             WO 1994-US10826     W   19940923
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US	1995-409298	A2 19950323
US	1995-409825	B2 19950323
US	1996-620597	A1 19960322
US	1998-66255	A2 19980424

AB Water soluble hybrid phthalocyanine derivs. useful in competitive and noncompetitive assays immunoassays, nucleic acid and assays are disclosed and claimed having (1) at least one donor subunit with a desired excitation peak; and (2) at least one acceptor subunit with a desired emission peak, wherein said derivative(s) is/are capable of intramol. energy transfer from said donor subunit to said acceptor subunit. Such derivs. also may contain an electron transfer subunit. Axial ligands may be covalently bound to the metals contained in the water soluble hybrid phthalocyanine derivs. Ligands, ligand analogs, polypeptides, **proteins** and nucleic acids can be linked to the axial ligands of the **dyes** to form **dye** conjugates useful in immunoassays and nucleic acid assays.

IT **16595-48-5 23178-67-8**

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (preparation of hybrid phthalocyanine derivs. for uses in immunoassays and nucleic acid assays)

RN 16595-48-5 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

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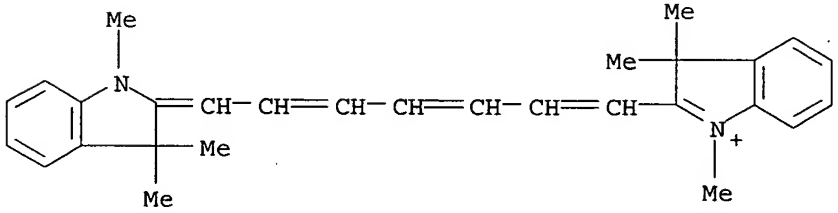
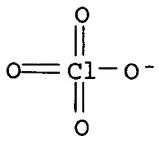
CMF C29 H33 N2



CM 2

CRN 14797-73-0
CMF Cl O4



RN 23178-67-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

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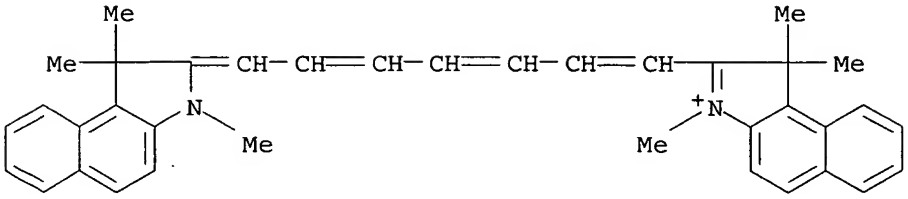
CRN 47809-39-2
CMF C37 H37 N2



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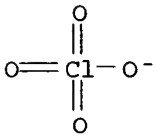


L30 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:141710 HCAPLUS
DOCUMENT NUMBER: 131:2301
TITLE: Enhanced sensitivity of wavelength modulated surface plasmon resonance devices using dispersion from a dye solution
AUTHOR(S): Hanning, A.; Roeraade, J.; Delrow, J. J.; Jorgenson, R. C.
CORPORATE SOURCE: Department of Analytical Chemistry, Royal Institute of Technology, Stockholm, SE-100 44, Swed.
SOURCE: Sensors and Actuators, B: Chemical (**1999**), B54(1-2), 25-36
CODEN: SABCEB; ISSN: 0925-4005
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English

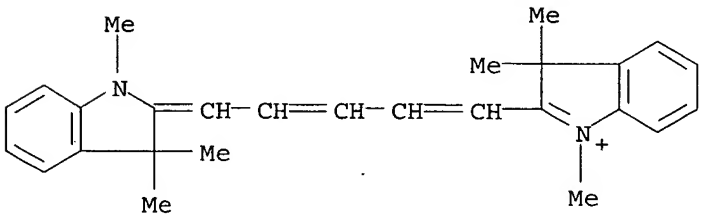
AB A dispersion technique for enhancing the sensitivity of wavelength modulated surface plasmon resonance devices is presented. Using the **dye**, 1,1'3,3,3',3'-hexamethylindodicarbocyanine (HIDC) iodide, which contains a strong absorption band centered in the dynamic range of the surface plasmon resonance coupling wavelength, the sensitivity to the bulk solution refractive index and the detection of analyte near the sensor surface is increased. A quant. theory for the enhancement effect is derived from the fundamental equation for surface plasmon resonance. Exptl. results are presented for a surface plasmon resonance fiber optic sensor. As much as a 4-fold enhancement in the sensitivity of the surface plasmon resonance response was obtained for bulk sucrose solns., and a 2-fold enhancement was obtained for binding of **proteins** to the sensor surface. The theor. anal. shows that it should readily be possible to obtain significantly greater enhancements of the sensitivity.

IT **36536-22-8**, HIDC

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(enhanced sensitivity of wavelength modulated surface plasmon resonance devices using dispersion from a dye solution)

RN 36536-22-8 HCAPLUS

CN 3H-Indolium, 2-[5-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:684455 HCAPLUS

DOCUMENT NUMBER: 129:317583

TITLE: Hybrid phthalocyanine derivatives and their uses in immunoassays and nucleic acid assays

INVENTOR(S): Buechler, Kenneth F.; Noar, Joseph B.; Tadesse, Lema

PATENT ASSIGNEE(S): Biosite Diagnostics Incorporated, USA

SOURCE: U.S., 57 pp., Cont.-in-part of U.S. Ser. No. 274,534.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 5824799	A	19981020	US 1996-620597	19960322	<--
US 6238931	B1	20010529	US 1994-274534	19940712	
US 5763189	A	19980609	US 1994-311098	19940923	<--
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US 2002061602	A1	20020523	US 2001-776599	20010201	

PRIORITY APPLN. INFO.:

US 1993-126367	B2	19930924
US 1993-138708	B2	19931018
US 1994-274534	A2	19940712
US 1994-311098	A2	19940923
US 1995-409825	A2	19950323
WO 1994-US10826	W	19940923
US 1995-409298	A2	19950323
US 1996-620597	A1	19960322
US 1998-66255	A2	19980424

AB Water soluble hybrid phthalocyanine derivs. having (1) at least one donor subunit with a desired excitation peak and (2) at least one acceptor subunit with a desired emission peak, wherein the derivs. are capable of intramol. energy transfer from the donor subunit to the acceptor subunit, are synthesized. Such derivs. also may contain an electron transfer

subunit. Axial ligands may be covalently bound to the metals contained in the water soluble hybrid phthalocyanine derivs. Ligands, ligand analogs, polypeptides, **proteins**, and nucleic acids can be linked to the axial ligands of the **dyes** to form **dye** conjugates useful in immunoassays and nucleic acid assays.

IT **16595-48-5 23178-67-8**

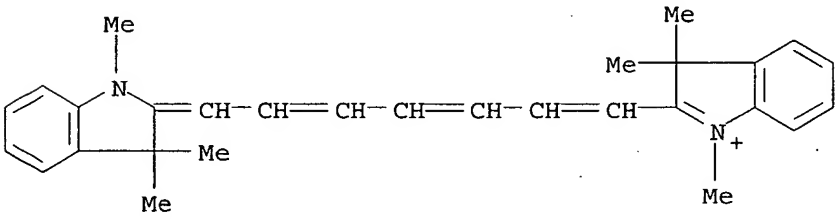
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (preparation of hybrid phthalocyanine derivs. for uses in immunoassays and nucleic acid assays)

RN 16595-48-5 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

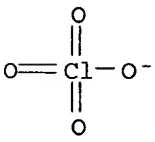
CM 1

CRN 47676-39-1
CMF C29 H33 N2



CM 2

CRN 14797-73-0
CMF Cl O4

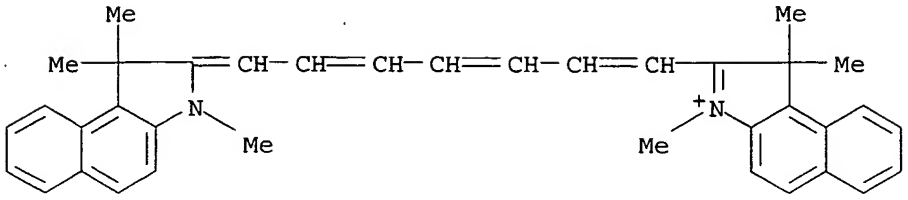


RN 23178-67-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

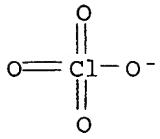
CM 1

CRN 47809-39-2
CMF C37 H37 N2



CM 2

CRN 14797-73-0
CMF Cl O4



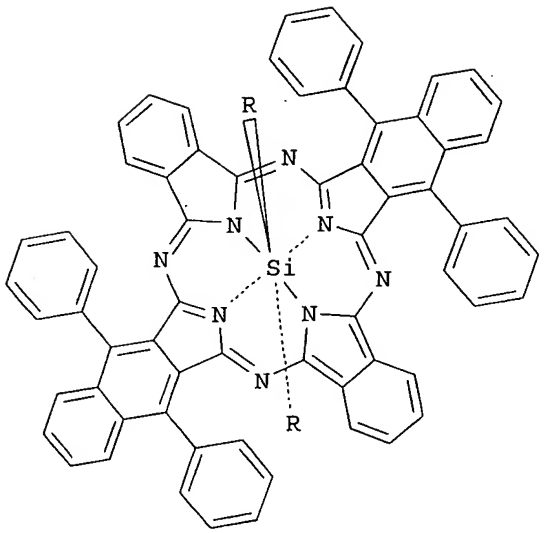
REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:392268 HCAPLUS
DOCUMENT NUMBER: 129:78836
TITLE: Fluorescence energy transfer and intramolecular energy transfer in particles using novel compounds for the application in immunoassays and nucleic acid assays
INVENTOR(S): Buechler, Kenneth F.; Noar, J. Barry; Tadesse, Lema
PATENT ASSIGNEE(S): Biosite Diagnostics Inc., USA
SOURCE: U.S., 36 pp., Cont.-in-part of U. S. Ser. No. 274,534.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 5763189	A	19980609	US 1994-311098	19940923	<--
US 6238931	B1	20010529	US 1994-274534	19940712	
US 6251687	B1	20010626	US 1995-409298	19950323	
US 5824799	A	19981020	US 1996-620597	19960322	<--
US 6964844	B1	20051115	US 1998-66255	19980424	
US 2002061602	A1	20020523	US 2001-776599	20010201	
PRIORITY APPLN. INFO.:			US 1993-126367	B2 19930924	
			US 1993-138708	B2 19931018	
			US 1994-274534	A2 19940712	
			US 1994-311098	A2 19940923	
			WO 1994-US10826	W 19940923	
			US 1995-409298	A2 19950323	
			US 1995-409825	A2 19950323	
			US 1996-620597	A1 19960322	
			US 1998-66255	A2 19980424	

OTHER SOURCE(S): MARPAT 129:78836

GI



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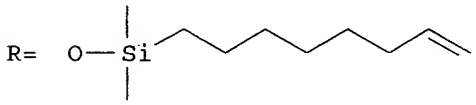


AB The invention concerns the synthesis of novel **dyes** and methods for the detection or visiualization of analytes; more specifically fluorescent latex particles which randomly incorporate the novel fluorescent **dyes** and utilize fluorescent energy transfer and intramol. energy transfer, for the detection of analytes in immunoassays or in nucleic acid assay. Particles comprise an energy donor as a first component and a fluorescent **dye** as a second component that are positioned at an energy exchanging distance from one another; the two components have a Stokes shift of greater than or equal to 50 nm; and the particles bind on the surface a **protein**, polypeptide, nucleic acid, nucleotide or **protein** containing ligand analog. In addition, novel fluorescent **dyes** (e.g., I) are described which exhibit intramol. energy transfer for use to label various mols., **proteins** , polypeptides, nucleotides and nucleic acids or to incorporate into particles. Compns. are given to minimize fluorescence quenching and to maximize fluorescence intensities of the **dye** mols. in the particles through the use of different **dye** mols. which posses the same or very similar excitation and emission wavelengths. Many novel phthalocyanine derivs. and hybrid phthalocyanine derivs. are disclosed. Thus latex microparticles have at least one hybrid phthalocyanine derivative, that derivative has at least one donor subunit with a desired excitation peak; and at least one acceptor unit with desired emission peak. The derivative(s) is/are capable of intramol. energy transfer from the donor subunit to the acceptor subunit; such derivs. also may contain and electron transfer subunit. Axial ligands may covalently bound to the metals contained in the hybrid phthalocyanine derivs. Numerous compds. capable of intramol. energy transfer as well as compds. for fluorescence energy transfer were

synthesized.

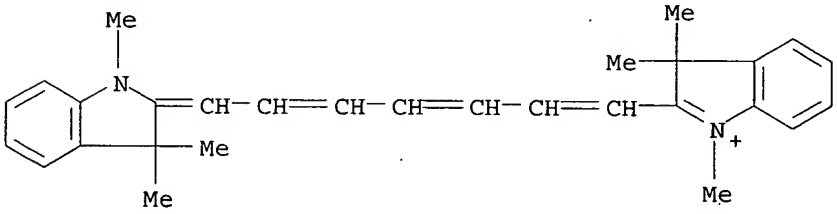
IT **16595-48-5**, 1,1',3,3,3',3'-Hexamethyl-indo-tricarbocyanine perchlorate **23178-67-8**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Fluorescence energy transfer and intramol. energy transfer in particles using novel compds. for the application in immunoassays and nucleic acid assays)

RN 16595-48-5 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

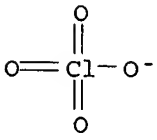
CM 1

CRN 47676-39-1
CMF C29 H33 N2



CM 2

CRN 14797-73-0
CMF Cl O4

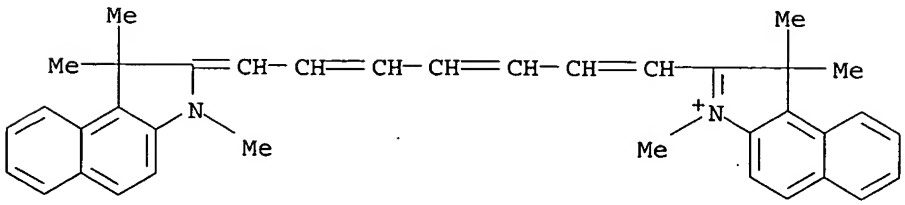


RN 23178-67-8 HCAPLUS

CN 1H-Benz[e]indolium, 2-[7-(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)-1,3,5-heptatrienyl]-1,1,3-trimethyl-, perchlorate (9CI) (CA INDEX NAME)

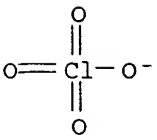
CM 1

CRN 47809-39-2
CMF C37 H37 N2



CM 2

CRN 14797-73-0
CMF Cl O4



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:208985 HCAPLUS
DOCUMENT NUMBER: 118:208985
TITLE: Refractive index-based assay method
INVENTOR(S): Hanning, Anders
PATENT ASSIGNEE(S): Pharmacia Biosensor AB, Swed.
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9304357	A1	19930304	WO 1992-SE558	19920819 <--
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
SE 9102397	A	19930221	SE 1991-2397	19910820 <--
SE 468962	B	19930419		
SE 468962	C	19930812		
AU 9224648	A1	19930316	AU 1992-24648	19920819 <--
EP 599956	A1	19940608	EP 1992-918059	19920819 <--
EP 599956	B1	19970205		
R: CH, DE, FR, GB, IT, LI, SE				
JP 06510367	T2	19941117	JP 1992-504255	19920819 <--
US 5573956	A	19961112	US 1994-193128	19940218 <--

PRIORITY APPLN. INFO.: SE 1991-2397 A 19910820
SE 1992-917 A 19920325
WO 1992-SE558 A 19920819

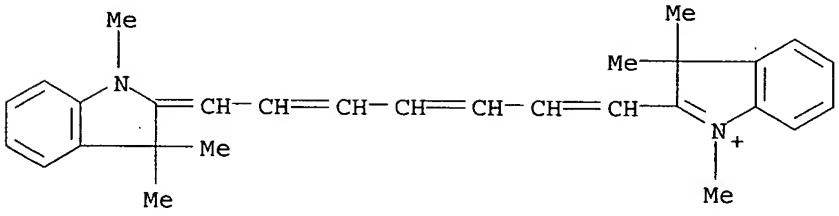
AB A method of assaying for an analyte in a fluid sample comprises detecting the presence of the analyte by determining the resulting change in refractive index at a solid optical surface in contact with the sample, which change is caused by the analyte involving or influencing the binding or release of a refractive index-enhancing species to or from, resp., the optical surface. The determination is performed with light having a wavelength at or near the maximum of the neg. derivative of the absorptivity with respect to wavelength of the refractive index-enhancing species to obtain maximum sensitivity. An antibody to β2-microglobulin was immobilized on a Sensor Chip CM5 by amine coupling. A sample pulse of β2-microglobulin and a pulse of

anti-β2-microglobulin secondary antibody labeled with dye [1,1'-di(4-sulfobutyl)-3,3,3',3'-tetramethyl-6-carboxymethylindotricarbocyanine] were passed over the sensor chip surface. The surface plasmon resonance response was recorded on a BIAcore instrument and compared for labeled and unlabeled secondary antibody. The labeled antibody gave an enhancement factor of 2.2.

IT **19764-96-6**
RL: ANST (Analytical study)
(surface plasmon resonance of Sensor Chip CM5 response to)

RN 19764-96-6 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



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L30 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:820 HCAPLUS

DOCUMENT NUMBER: 100:820

TITLE: Reconstitution of pure acetylcholine receptor in phospholipid vesicles and comparison with receptor-rich membranes by the use of a potentiometric dye

AUTHOR(S): Ludi, Hans; Oetliker, Hans; Brodbeck, Urs; Ott, Peter; Schwendimann, Bernhard; Fulpius, Bernhard W.

CORPORATE SOURCE: Med.-Chem. Inst., Univ. Bern, Bern, CH-3000/9, Switz.

SOURCE: Journal of Membrane Biology (**1983**), 74(2), 75-84
CODEN: JMBBBO; ISSN: 0022-2631

DOCUMENT TYPE: Journal

LANGUAGE: English

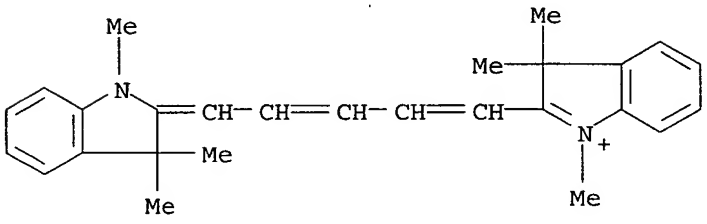
AB Acetylcholine [51-84-3] receptor, isolated in Triton X-100 on a cobra α-neurotoxin affinity column was incorporated into unilamellar phospholipid vesicles by a detergent depletion method using Amberlite XAD-2. Vesicles of an average diameter of 25 nm were formed and 85-95% of the α-bungarotoxin binding sites of the reconstituted acetylcholine receptor were oriented towards the outside of the vesicles. In the reconstituted receptor 1 mol. of residual Triton X-100 per 2.5 α-bungarotoxin binding sites was determined on the receptor mol. The reconstituted **protein** was not accessible to papain digestion, whereas the pure acetylcholine receptor, solubilized by Triton X-100 was split into smaller polypeptides under the same condition. Reconstituted acetylcholine receptor and receptor-rich membranes did not exhibit the same behavior as measured by use of a potentiometric **dye**, indodicarbocyanine [**36536-22-8**]. This is interpreted as an irreversible alteration of at least 95% of the receptors purified in the presence of Triton X-100. The fluorescence intensity changes induced by

carbamylcholine [462-58-8] in receptor-rich membranes did not reflect ion fluxes, but conformational changes of the **protein** or a displacement of the **dye** from the **protein**.

IT **36536-22-8**
RL: BIOL (Biological study)
(as indicator of cholinergic receptor properties)

RN 36536-22-8 HCAPLUS

CN 3H-Indolium, 2-[5-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



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L30 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1977:580118 HCAPLUS

DOCUMENT NUMBER: 87:180118

TITLE: Studies on the suitability of a cyanine dye (Viher-Test) for indicator dilution technique and its application to the measurement of pulmonary artery and aortic flow

AUTHOR(S): Schad, H.; Brechtelsbauer, H.; Kramer, K.

CORPORATE SOURCE: Physiol. Inst., Univ. Muenchen, Munich, Fed. Rep. Ger.

SOURCE: Pfluegers Archiv (**1977**), 370(2), 139-44
CODEN: PFLABK; ISSN: 0031-6768

DOCUMENT TYPE: Journal

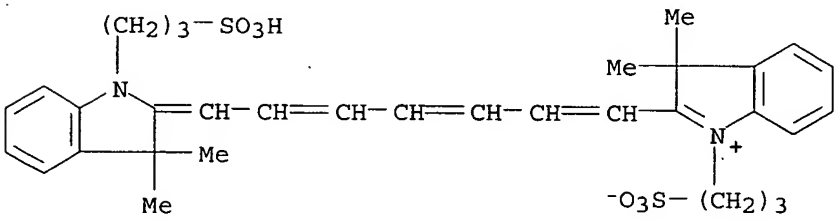
LANGUAGE: English

AB The spectrum of a cyanine compound (Rie 4580:Viher-Test, VT) was recorded in distilled water, 5% glucose, 0.9% NaCl. The absorption maximum of these solns. was at 760 nm; after adding to plasma or blood the maximum was shifted to 785 nm. The time required for this spectral stabilization was <1 s at 37° for VT in H2O or glucose, it was slowed to 7 s at room temperature, and for VT in NaCl it was >30 s at 37°. VT binds to plasma **proteins** to at least 95%. The absorbance of VT in H2O (1000 mg/L) decreased by 1.0%/h. Toxicity (LD50) of VT in H2O given i.v. in mice was 115 mg/kg body weight **Dye** dilution determination of the flow in an artificial circulation with VT was within ±5% of direct measurements. Data indicate that VT is as suitable as Cardiogreen for indicator dilution technique using cuvette densitometer or reflection photometry. Simultaneous detns. in dogs of pulmonary artery and aortic flow from 1 **dye** bolus showed no significant difference on the average, but pulmonary artery flow diverged by up to ±25% from aortic flow due to incomplete mixing of **dye** and blood, respiratory changes of cardiac output or transient differences in right and left heart output.

IT **64635-97-8**
RL: ANST (Analytical study)
(cardiac output determination with)

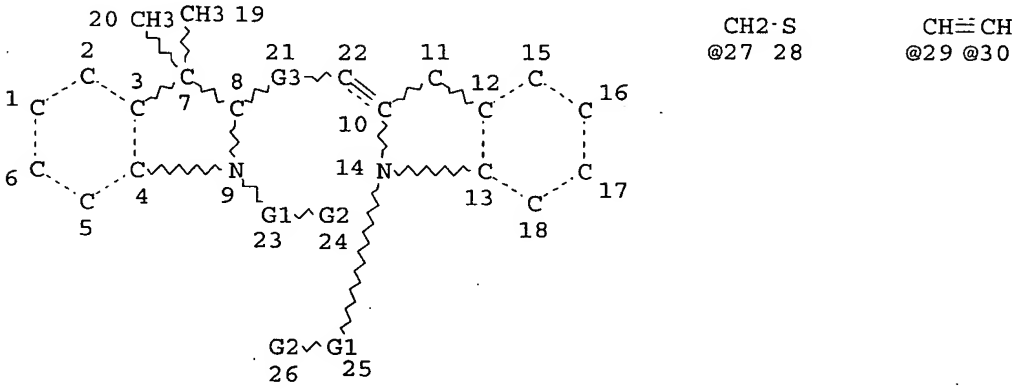
RN 64635-97-8 HCAPLUS

CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, potassium salt (9CI) (CA INDEX NAME)



● K

=> => d stat que l34
L3 STR



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CH≡CH~CH≡CH @31 32 33 @34 CH≡CH~CH≡CH~CH≡CH @35 36 37 38 39 @40

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VAR G2=CH3/27
VAR G3=29-8 30-22/31-8 34-22/35-8 40-22
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE
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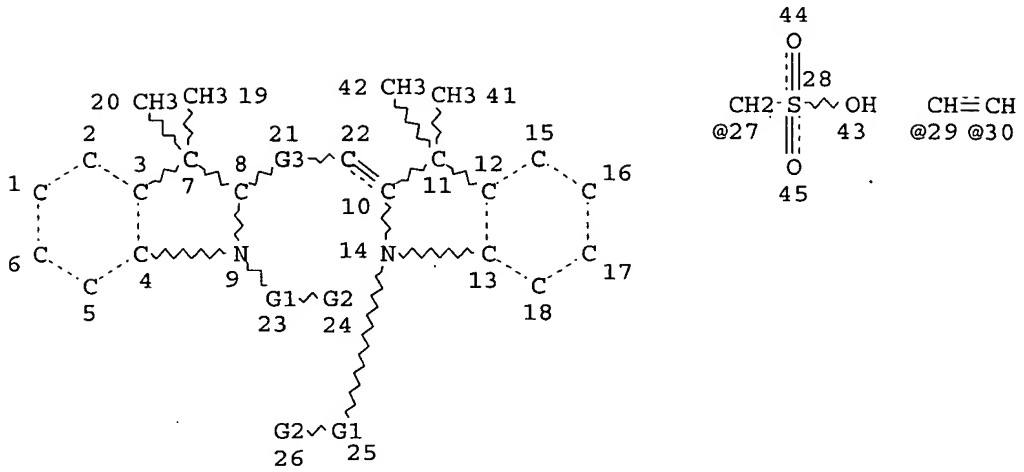
L16 STR



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GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 45

STEREO ATTRIBUTES: NONE

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L19 SCR 2127 OR 2050 OR 2049 OR 2043 OR 1842
L20 302 SEA FILE=REGISTRY SUB=L17 SSS FUL L16 NOT L19
L21 138 SEA FILE=HCAPLUS ABB=ON PLU=ON L20
L22 100 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND PD=<APRIL 10, 1999
L23 84 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND DYE
L25 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 AND PEPTID?
L26 1319 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L20
L27 1984 SEA FILE=HCAPLUS ABB=ON PLU=ON L26
L28 1518 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND PD=<APRIL 10, 1999
L29 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND (PROTEIN OR PEPTID?)(L)DYE
L30 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 NOT L25
L33 82 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 NOT (L25 OR L30)
L34 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L33 AND PATENT/DT

=> d ibib abs hitstr l34 1-24

L34 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:310508 HCAPLUS
DOCUMENT NUMBER: 134:323136
TITLE: Cyanine **dyes** as labeling reagents for detection of biological and other materials by

luminescence methods
INVENTOR(S): Waggoner, Alan S.
PATENT ASSIGNEE(S): Carnegie Mellon University, USA
SOURCE: U.S., 20 pp., Cont.-in-part of U.S. 5,627,027.
CODEN: USXXAM

DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 6225050	B1	20010501	US 1996-745712	19961112	
US 5268486	A	19931207	US 1992-884636	19920515	<--
US 5627027	A	19970506	US 1992-831759	19920922	<--
US 5486616	A	19960123	US 1993-158952	19931129	<--
US 5569766	A	19961029	US 1993-158953	19931129	<--
US 5569587	A	19961029	US 1995-424219	19950419	<--
US 6048982	A	20000411	US 1997-873470	19970612	
US 6956032	B1	20051018	US 2000-740486	20001219	
US 2002142340	A1	20021003	US 2002-103119	20020322	
US 6989275	B2	20060124			
US 2002146736	A1	20021010	US 2002-103116	20020322	

PRIORITY APPLN. INFO.:

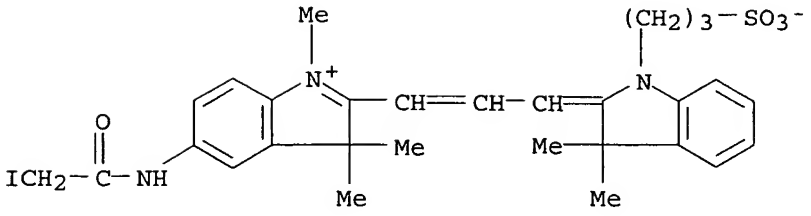
US 1986-854347	B1	19860418
US 1992-831759	A2	19920922
US 1988-240756	B1	19880902
US 1992-882802	B1	19920514
US 1992-884636	A3	19920515
US 1996-745712	A3	19961112
US 2000-740486	A3	20001219

OTHER SOURCE(S): MARPAT 134:323136

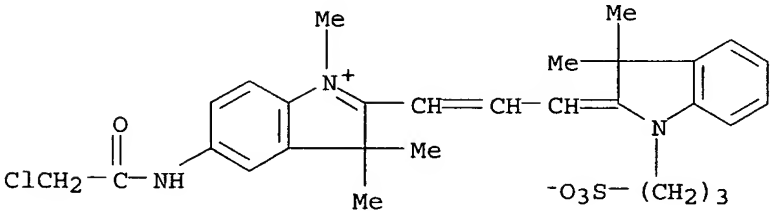
AB Cyanine and related **dyes**, such as merocyanine, styryl and oxonol **dyes**, are strongly light-absorbing and highly luminescent. Cyanine and related **dyes** having functional groups to make them reactive with amine, hydroxy and sulfhydryl groups are covalently attached to proteins, nucleic acids, carbohydrates, sugars, cells and combinations thereof, and other biol. and nonbiol. materials, to make these materials fluorescent so that they can be detected. The labeled materials can then be used in assays employing excitation light sources and luminescence detectors. For example, fluorescent cyanine and related **dyes** can be attached to amine, hydroxy or sulfhydryl groups of avidin and to antibodies and to lectins. Thereupon, avidin labeled with cyanine type **dyes** can be used to quantify biotinylated materials and antibodies conjugated with cyanine-type **dyes** can be used to detect and measure antigens and haptens. In addition, cyanine-conjugated lectins can be used to detect specific carbohydrate groups. Also, cyanine-conjugated fragments of DNA or RNA can be used to identify the presence of complementary nucleotide sequences in DNA or RNA.

IT **336850-21-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(as reactive **dye**; cyanine **dyes** as labeling reagents for detection of biol. and other materials by luminescence methods)

RN 336850-21-6 HCAPLUS
CN 3H-Indolium, 2-[3-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1-propenyl]-5-[(iodoacetyl)amino]-1,3,3-trimethyl-, inner salt (9CI) (CA INDEX NAME)



IT **120725-04-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(cyanine **dyes** as labeling reagents for detection of biol. and other materials by luminescence methods)
RN 120725-04-4 HCAPLUS
CN 3H-Indolium, 5-[(chloroacetyl)amino]-2-[3-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1-propenyl]-1,3,3-trimethyl-, inner salt (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:624034 HCAPLUS
DOCUMENT NUMBER: 129:242195
TITLE: Fiber optic sensor with encoded microspheres
INVENTOR(S): Walt, David R.; Michael, Karri C.
PATENT ASSIGNEE(S): Trustees of Tufts College, USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9840726	A1	19980917	WO 1998-US5025	19980313 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2283742	AA	19980917	CA 1998-2283742	19980313 <--

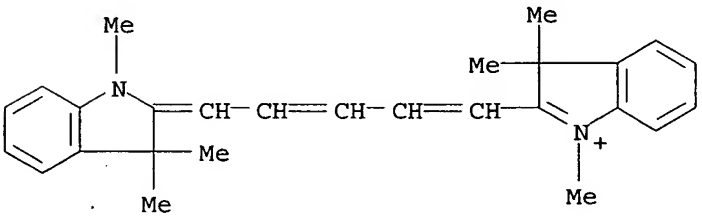
AU 9864648	A1	19980929	AU 1998-64648	19980313 <--
AU 746365	B2	20020418		
EP 966671	A1	19991229	EP 1998-910397	19980313
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001524208	T2	20011127	JP 1998-539874	19980313
PRIORITY APPLN. INFO.:			US 1997-818199	A 19970314
			WO 1998-US5025	W 19980313

AB A microsphere-based analytic chemical system is disclosed in which microspheres carrying different chemical functionalities may be mixed together while the ability is retained to identify the functionality on each bead using an optically interrogatable encoding scheme. An optical fiber bundle sensor is also disclosed in which the sep. microsphere may be optically coupled to discrete fibers or groups of fibers within the bundle. The functionalities are encoded on the sep. microspheres using fluorescent **dyes** and then affixed to wells etched in the end of the bundle. Thus, a single sensor may carry thousands of chemistries. Only those microspheres exhibiting reactions then need to be decoded to identify the corresponding functionality.

IT **48221-03-0**, 1,1',3,3,3',3'-Hexamethyl-indodicarbocyanine
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fiber optic sensor with encoded microspheres)

RN 48221-03-0 HCAPLUS

CN 3H-Indolium, 2-[5-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:157690 HCAPLUS

DOCUMENT NUMBER: 128:250650

TITLE: Silver halide photographic material using novel **dye**

INVENTOR(S): Nakamura, Masaki; Kagawa, Nobuaki

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.
CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

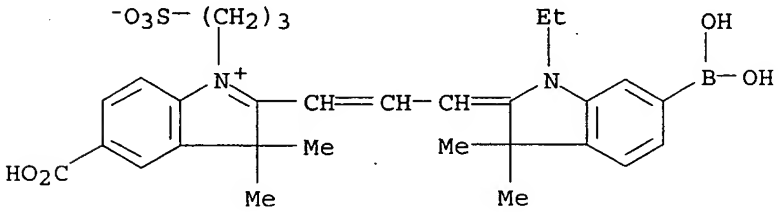
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10069028	A2	19980310	JP 1996-228466	19960829 <--
PRIORITY APPLN. INFO.:			JP 1996-228466	19960829

AB The title material contains ≥1 organic compound having ≥1 boric acid or boronic acid group and an absorption maximum wavelength at

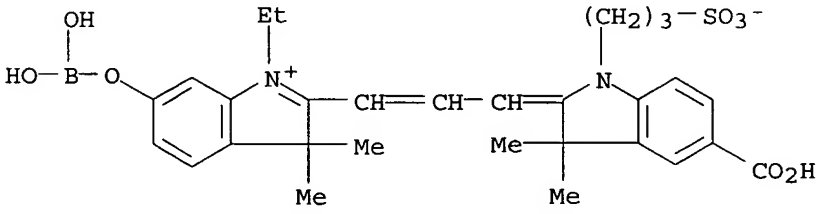
≥350 nm. The novel compound useful as a photog. **dye** has good decoloring properties and the material shows decreased fog desensitization and color mixing.

IT **204932-96-7 204933-06-2**
RL: DEV (Device component use); USES (Uses)
(photog. film containing **dye** having boric acid or boronic acid group)

RN 204932-96-7 HCAPLUS
CN 3H-Indolium, 2-[3-(6-borono-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1-propenyl]-5-carboxy-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 204933-06-2 HCAPLUS
CN 3H-Indolium, 6-(boronooxy)-2-[3-[5-carboxy-1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-, inner salt (9CI) (CA INDEX NAME)



L34 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:954588 HCAPLUS
DOCUMENT NUMBER: 123:344716
TITLE: Use of infrared absorbing and fluorescent substances as flaw detection agents
INVENTOR(S): Neumann, Peter; Kipper, Juergen; Albert, Bernhard; Wagenblast, Gerhard
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 666474	A1	19950809	EP 1995-101126	19950127 <--
EP 666474	B1	19990331		

R: BE, CH, DE, FR, GB, IT, LI, NL

DE 4403664	A1	19950810	DE 1994-4403664		19940207 <--
US 5554318	A	19960910	US 1995-379283		19950127 <--
JP 07243991	A2	19950919	JP 1995-17344		19950203 <--
PRIORITY APPLN. INFO.:			DE 1994-4403664	A	19940207

OTHER SOURCE(S): MARPAT 123:344716

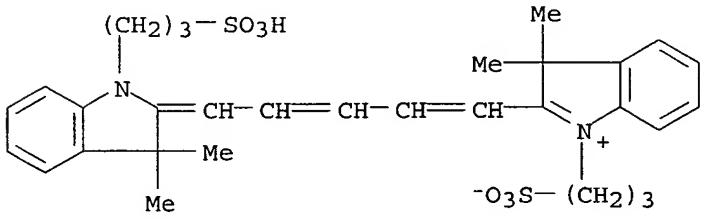
AB Substances of the following classes are used: phthalocyanines, naphthalocyanines, aminium compds. of aromatic amines, methine **dyes**, or azulene squaric acid **dyes.** Their absorption maximum and fluorescence maximum are in the 600-1200 and 620-1200 nm ranges, resp. They can be used for flaw detection in metals, ceramics and plastics.

IT **93374-19-7**

RL: NUU (Other use, unclassified); USES (Uses)
(use of IR absorbing and fluorescent substances as flaw detection agents)

RN 93374-19-7 HCAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



L34 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:865152 HCAPLUS

DOCUMENT NUMBER: 124:18451

TITLE: Photosensitive composition and lithographic printing plate

INVENTOR(S): Fukumuro, Iku; Takagi, Koji; Matsubara, Shinichi; Sasaki, Mitsuru; Matsuo, Fumyuki

PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan; Mitsubishi Kagaku KK

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

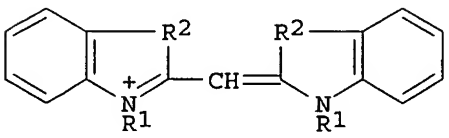
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07209858	A2	19950811	JP 1994-18958	19940119 <--
PRIORITY APPLN. INFO.:			JP 1994-18958	19940119

OTHER SOURCE(S): MARPAT 124:18451

GI



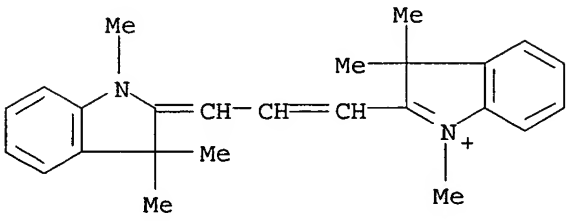
I

AB The composition contains an alkali-soluble polymer, a quinonediazide compound, a cyanine **dye**, and an alkyl borate. The lithog. plate has a photosensitive layer comprising the composition The cyanine **dye** may be I (R1 = lower alkyl; R2 = O, S, lower alkyl). The plate shows high sensitivity and decoloration properties.

IT **20766-56-7**
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(photosensitive polymer composition containing cyanine **dye** and alkyl borate and lithog. printing plate with high sensitivity)

RN 20766-56-7 HCAPLUS

CN 3H-Indolium, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:484539 HCAPLUS
DOCUMENT NUMBER: 122:216863
TITLE: Printer ribbons containing IR absorbers
INVENTOR(S): Albert, Bernhard; Kipper, Juergen; Closs, Friedrich; Ballaire, Helmut
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4308635	A1	19940922	DE 1993-4308635	19930318 <--
WO 9421471	A1	19940929	WO 1994-EP661	19940305 <--
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 689507	A1	19960103	EP 1994-909116	19940305 <--
EP 689507	B1	19980204		
R: DE, GB				
JP 08507731	T2	19960820	JP 1994-520583	19940305 <--
US 5607762	A	19970304	US 1995-513864	19950914 <--
PRIORITY APPLN. INFO.:			DE 1993-4308635 A	19930318
			WO 1994-EP661 W	19940305

OTHER SOURCE(S): MARPAT 122:216863

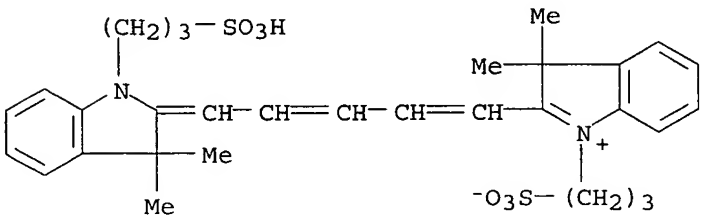
AB The ribbons contain metal-free or -complexed phthalocyanines, naphthalocyanines, Ni dithiolene complexes, aromatic aminium compds., cyanines, and(or) squaric acid derivs. with absorption maximum at 700-1200 nm

in addition to solvents such as olein, phthalates, chloro- or diphenylalkanes, dialkylnaphthalenes, and(or) hydrogenated terphenyls. The ribbons may be used to print IR-scannable bar codes. A typical IR absorber was Cu hexadecakis(phenylthio)phthalocyanine and solvents employed were diisopropylnaphthalene and DOP.

IT **93374-19-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(printer ribbons containing IR absorbers)

RN 93374-19-7 HCAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



L34 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:222179 HCAPLUS
DOCUMENT NUMBER: 120:222179
TITLE: Use of compounds which absorb and/or fluoresce in the IR range as markers for liquids
INVENTOR(S): Albert, Bernhard; Kipper, Juergen; Vamvakaris, Christos; Beck, Karin Heidrun
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4224301	A1	19940127	DE 1992-4224301	19920723 <--
WO 9402570	A1	19940203	WO 1993-EP1830	19930713 <--
W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9345678	A1	19940214	AU 1993-45678	19930713 <--
AU 673530	B2	19961114		
EP 656929	A1	19950614	EP 1993-915892	19930713 <--
EP 656929	B1	19970205		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
JP 07509507	T2	19951019	JP 1994-503916	19930713 <--
JP 3561739	B2	20040902		
HU 71272	A2	19951128	HU 1995-182	19930713 <--
HU 214637	B	19980428		
IL 106322	A1	19960912	IL 1993-106322	19930713 <--
AT 148736	E	19970215	AT 1993-915892	19930713 <--

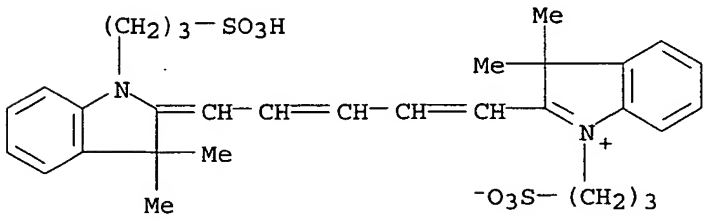
ES 2097525	T3	19970401	ES 1993-915892		19930713 <--
RU 2109796	C1	19980427	RU 1995-105438		19930713 <--
PL 175152	B1	19981130	PL 1993-307175		19930713 <--
BR 9306754	A	19981208	BR 1993-6754		19930713 <--
CA 2140667	C	20030923	CA 1993-2140667		19930713
CZ 294548	B6	20050112	CZ 1995-150		19930713
ZA 9305300	A	19950123	ZA 1993-5300		19930722 <--
CN 1085239	A	19940413	CN 1993-116852		19930723 <--
CN 1045984	B	19991027			
FI 9500227	A	19950119	FI 1995-227		19950119 <--
NO 9500213	A	19950120	NO 1995-213		19950120 <--
NO 317928	B1	20050110			
US 5804447	A	19980908	US 1997-844861		19970423 <--
US 5998211	A	19991207	US 1998-116897		19980717
NO 2000003811	A	19950120	NO 2000-3811		20000725 <--
PRIORITY APPLN. INFO.:			DE 1992-4224301	A	19920723
			DE 1992-4243774	A	19921223
			DE 1992-4243776	A	19921223
			WO 1993-EP1830	W	19930713
			US 1995-367315	B1	19950120
			US 1995-562789	B1	19951127
			US 1997-844861	A1	19970423

AB Compds. from the class of the phthalocyanine, naphthalocyanine, nickel-dithiolene complex, aminium compds. of aromatic amines, methine **dyes** or azulene quadratic acid **dyes**, the maximum absorption of which is in the 700 to 1,200 nm range are used as markers for liqs. The markers are then determined in liqs. such as diesel fuel and fuel oil using a photometer.

IT **93374-19-7**
RL: USES (Uses)
(as marker **dye** for diesel and fuel oils)

RN 93374-19-7 HCAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



L34 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1994:222178 HCAPLUS
DOCUMENT NUMBER:	120:222178
TITLE:	Use of compounds which absorb and/or fluoresce in the IR range as markers for liquids
INVENTOR(S):	Albert, Bernhard; Kipper, Juergen; Vamvakaris, Christos; Beck, Karin Heidrun; Wagenblast, Gerhard
PATENT ASSIGNEE(S):	BASF A.-G., Germany
SOURCE:	PCT Int. Appl., 34 pp. CODEN: PIXXD2
DOCUMENT TYPE:	**Patent**
LANGUAGE:	German

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9402570	A1	19940203	WO 1993-EP1830	19930713 <--
W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 4224301	A1	19940127	DE 1992-4224301	19920723 <--
DE 4243774	A1	19940630	DE 1992-4243774	19921223 <--
DE 4243776	A1	19940630	DE 1992-4243776	19921223 <--
AU 9345678	A1	19940214	AU 1993-45678	19930713 <--
AU 673530	B2	19961114		
EP 656929	A1	19950614	EP 1993-915892	19930713 <--
EP 656929	B1	19970205		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
JP 07509507	T2	19951019	JP 1994-503916	19930713 <--
JP 3561739	B2	20040902		
RU 2109796	C1	19980427	RU 1995-105438	19930713 <--
PL 175152	B1	19981130	PL 1993-307175	19930713 <--
BR 9306754	A	19981208	BR 1993-6754	19930713 <--
CA 2140667	C	20030923	CA 1993-2140667	19930713
NO 9500213	A	19950120	NO 1995-213	19950120 <--
NO 317928	B1	20050110		
NO 2000003811	A	19950120	NO 2000-3811	20000725 <--

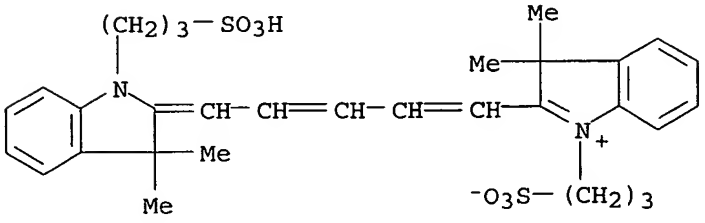
PRIORITY APPLN. INFO.:			
DE 1992-4224301	A	19920723	
DE 1992-4243774	A	19921223	
DE 1992-4243776	A	19921223	
WO 1993-EP1830	W	19930713	

AB Compds. from the class of the phthalocyanine, naphthalocyanine, nickel-dithiolene complex, aminium compds. of aromatic amines, methine **dyes** or azulene quadratic acid **dyes**, the maximum absorption of which is in the 600 to 1,200 nm range and/or the maximum fluorescence of which is in the 620 to 1,200 nm range, are used as markers for liqs. The markers are then determined in liqs. such as diesel fuel and fuel oil using a photometer.

IT **93374-19-7**
RL: USES (Uses)
(as marker **dye** for diesel and fuel oils)

RN 93374-19-7 HCAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



L34 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:166995 HCAPLUS
DOCUMENT NUMBER: 120:166995
TITLE: IR-absorbing **dyes** for use in printing inks
INVENTOR(S): Albert, Bernhard; Closs, Friedrich; Kipper, Juergen; Kurtz, Walter; Beck, Karin Heidrun; Griebel, Rudolf
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 13 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

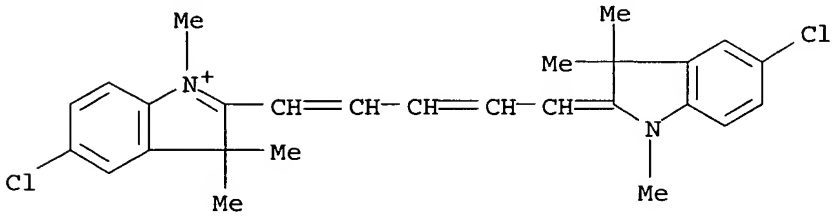
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4202038	A1	19930729	DE 1992-4202038	19920125 <--
EP 553614	A1	19930804	EP 1993-100119	19930107 <--
EP 553614	B1	19970716		
R: BE, CH, DE, FR, GB, IT, LI, NL				
JP 07247454	A2	19950926	JP 1993-8951	19930122 <--
US 5282894	A	19940201	US 1993-8590	19930125 <--

PRIORITY APPLN. INFO.: DE 1992-4202038 A 19920125

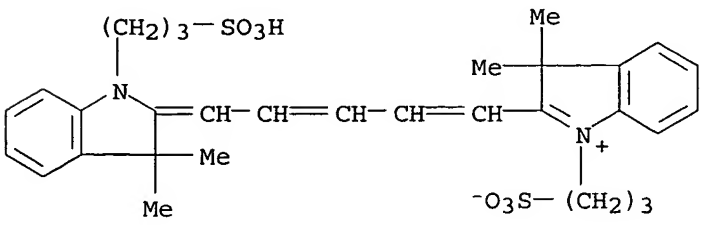
AB Phthalocyanine derivs., Ni dithiolene complexes, aromatic amminium compds., methine **dyes**, and azulenesquaric acid **dyes** (absorption maximum 700-1200 nm) are useful as IR absorbers in printing inks, e.g., for printing bar codes. An ink containing Cu hexadeca(phenylthio)phthalocyanine and PhOH-modified rosin gave prints on paper with absorption maximum 780 nm.

IT **80988-57-4 93374-19-7**
RL: USES (Uses)
(IR absorbers, for use in printing inks)

RN 80988-57-4 HCAPLUS
CN 3H-Indolium, 5-chloro-2-[5-(5-chloro-1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



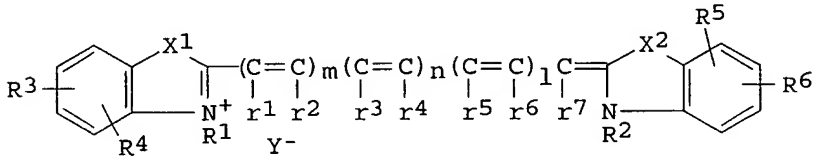
RN 93374-19-7 HCAPLUS
CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



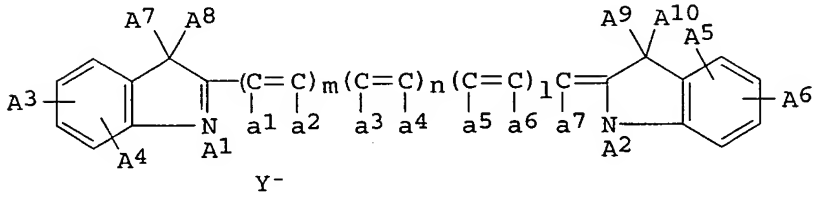
L34 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:591958 HCAPLUS
DOCUMENT NUMBER: 119:191958
TITLE: Heat-developable photographic material having high sensitivity in near-IR region and method for forming high-contrast image therewith
INVENTOR(S): Katayama, Masato; Fukui, Tetsuro; Tanaka, Hiromi; Kagami, Kenji; Suzuki, Masao
PATENT ASSIGNEE(S): Canon K. K., Japan; Oriental Photo Industrial Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04348339	A2	19921203	JP 1991-29085	19910131 <--
PRIORITY APPLN. INFO.:			JP 1991-29085	19910131

GI



I

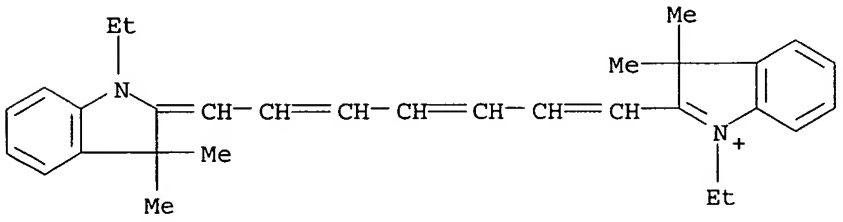


II

AB In the title photog. material having a halation-proof layer between the substrate and photosensitive layer, the photosensitive layer containing heat-developable elements, an organic Ag salt, a reducing agent, a photosensitive Ag halide and/or a precursor for photosensitive Ag halide and a binder, contains a sensitizing **dye** I [R1,2 = alkyl; R3-6 = H, alkyl, alkoxy, halo, hydroxy, aryl, carboxy, alkoxycarbonyl, cyano, trifluoromethyl, amino, acylamido, acyl, acyloxy, alkoxycarbonylamino, carboalkoxy; R3-6 may form, a naphtho ring by combining together; X1,2 = O, S, Se; Y- = anion; r1,2 = H, alkyl; r1/r2, r2/r3, r2/r4, r3/r4, r4/r5. r5/r6, and r6/r7 may form a 5- or- 6-membered ring; m, n, l = 0-3, and cannot be 0 simultaneously]; and the halation-proof layer contains, as a binder, a compound II [A7-10 = alkyl; A1,2 = H, alkyl; A3-6 = R3-6; A3/A4, A5/A6 may form naphthooxazole ring; a1/a2, a2/a3, a2/a4, a3/a4, a4/a5, a5/a6, and a6/a7 may form a 5- or- 6-membered ring].

IT **52754-40-2**
RL: USES (Uses)
(binder, dry silver salt photothermog. copying material containing)

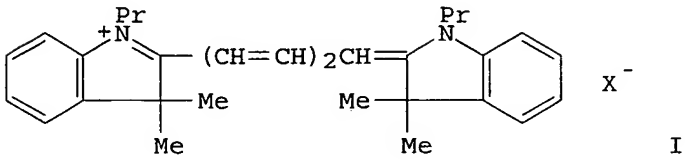
RN 52754-40-2 HCAPLUS
CN 3H-Indolium, 1-ethyl-2-[7-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-3,3-dimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:223006 HCAPLUS
DOCUMENT NUMBER: 118:223006
TITLE: Optical recording medium using indolenine-form cyanine **dyes**
INVENTOR(S): Aoi, Toshiki; Yasukawa, Koji
PATENT ASSIGNEE(S): TDK Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04358886	A2	19921211	JP 1991-162006	19910606 <--
JP 3124319	B2	20010115		
PRIORITY APPLN. INFO.:			JP 1991-162006	19910606

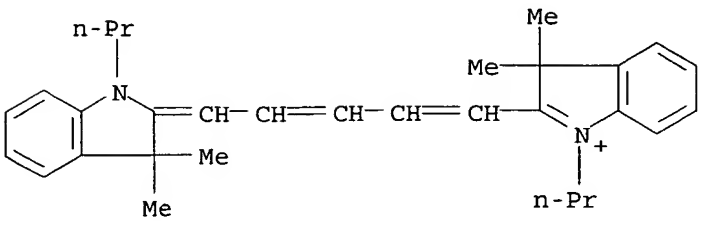
GI



I

AB An optical recording medium comprises on a grooved substrate a recording layer containing **dyes** and a reflective layer closely laminated thereon, in which recording is done by irradiation of recording light to the recording layer and reading is done by reading light, the recording layer contains the title **dyes** I (X- = anion). The medium shows stable reading property with little dependence on wave length of the reading light, and is useful for write-once type compact disks.
IT **147489-87-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(optical recording medium containing, with little dependence on wave length of reading light)
RN 147489-87-0 HCAPLUS
CN 3H-Indolium, 2-[5-(1,3-dihydro-3,3-dimethyl-1-propyl-2H-indol-2-ylidene)-

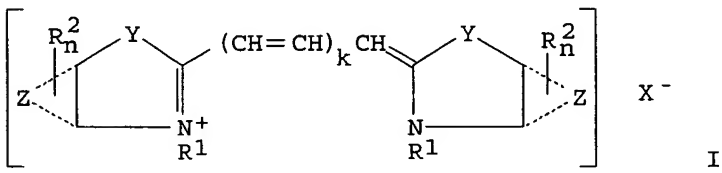
1,3-pentadienyl]-3,3-dimethyl-1-propyl- (9CI) (CA INDEX NAME)



L34 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:180185 HCAPLUS
DOCUMENT NUMBER: 118:180185
TITLE: Preparation of cyanine **dyes** and optical recording media using them
INVENTOR(S): Tatsuzono, Fumio; Matsura, Kotaro; Hirano, Yasushi
PATENT ASSIGNEE(S): Sanyo Electric Co., Ltd., Japan; Taoka Chemical Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04283269	A2	19921008	JP 1991-45153	19910311 <--
PRIORITY APPLN. INFO.:			JP 1991-45153	19910311

OTHER SOURCE(S): MARPAT 118:180185
GI



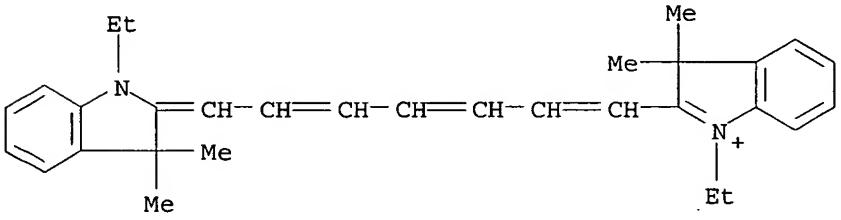
I

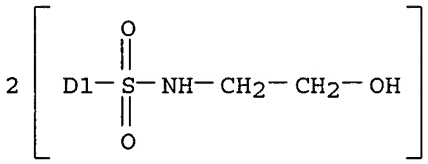
AB Cyanine **dyes** I [R1 = alkyl, aryl, alkenyl, alkoxy, OH, CO2H, haloalkyl; R2 = SO2NHCH2CH2OH, morpholinosulfonyl, SO2NH(CH2CH2OH)2, SO2NHC6H4SO2NH2, SO2NH(CH2)3OCH2CHEtBu, SO2NH(CH2)3OCO2Et, SO2NH(CH2)3OCH2CH2OMe; Y = O, S, Se, CMe2; Z = condensed benzene, naphthalene, anthracene, phenanthrene ring; X = halo, ClO4, MeC6H4SO3, alkalisulfonate (sic), BF4] and optical recording media having a recording layer containing I are claimed. I show high solubility in organic solvents, e.g. EtOH, and can form uniform **dye** film on polymer substrates by direct coating process.

IT **146599-63-5P 146599-64-6P 146599-66-8P**
RL: PREP (Preparation)
(preparation of, for optical recording media)

RN 146599-63-5 HCAPLUS

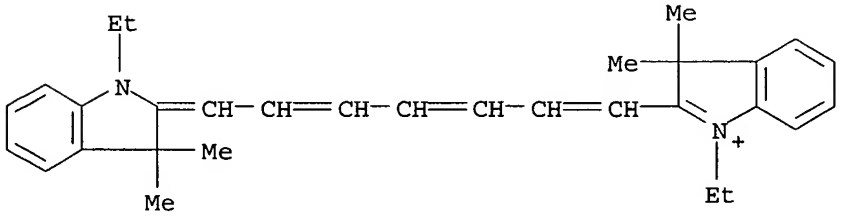
CN 3H-Indolium, 1-ethyl-2-[7-[1-ethyl-1,3-dihydro[[(2-hydroxyethyl)amino]sulfonyl]-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl][[(2-hydroxyethyl)amino]sulfonyl]-3,3-dimethyl- (9CI) (CA INDEX NAME)

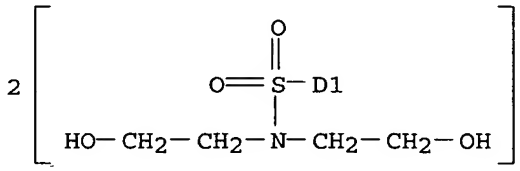




RN 146599-64-6 HCAPLUS

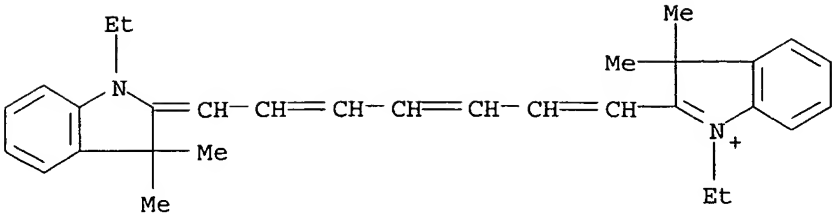
CN 3H-Indolium, [[bis(2-hydroxyethyl)amino]sulfonyl]-2-[7-[[[bis(2-hydroxyethyl)amino]sulfonyl]-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-ethyl-3,3-dimethyl- (9CI) (CA INDEX NAME)

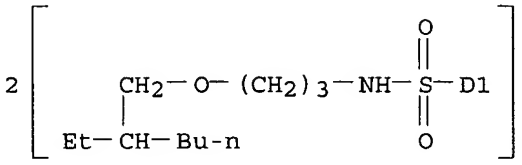




RN 146599-66-8 HCAPLUS

CN 3H-Indolium, 1-ethyl-2-[7-[1-ethyl[[[3-[(2-ethylhexyl)oxy]propyl]amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3,5-heptatrienyl][[[3-[(2-ethylhexyl)oxy]propyl]amino]sulfonyl]-3,3-dimethyl- (9CI) (CA INDEX NAME)

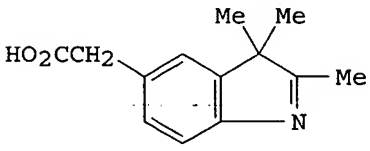




L34 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:209235 HCAPLUS
DOCUMENT NUMBER: 114:209235
TITLE: Fluorescent cyanine **dye** and intermediates containing carboxylic acid groups
INVENTOR(S): Southwick, Philip L.; Waggoner, Alan S.
PATENT ASSIGNEE(S): Carnegie-Mellon University, USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4981977	A	19910101	US 1989-364773	19890609 <--

PRIORITY APPLN. INFO.: US 1989-364773 19890609
OTHER SOURCE(S): MARPAT 114:209235
GI

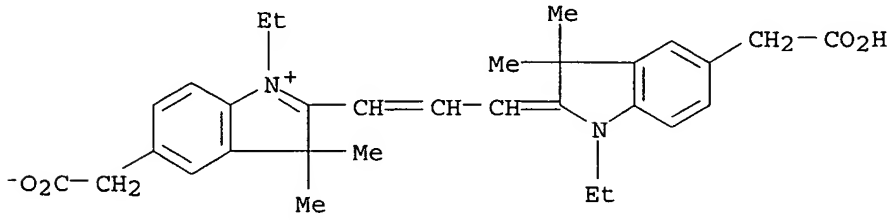


I

AB The intermediates, useful as precursors of fluorescent cyanine **dyes** for use as covalently attached labels in biol. research, were prepared Thus, 4-HO2CCH2C6H4NHNH2.HCl was treated with MeCOCHMe2 in the presence of AcOH, producing 2,3,3-trimethyl-3H-indole-5-acetic acid (I), which exhibited a blue-white fluorescence on thin-layer plates when irradiated at 360 nm. I was quaternized with EtI and condensed with HC(OEt)3 to give a cyanine with red fluorescence.

IT **133710-71-1P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

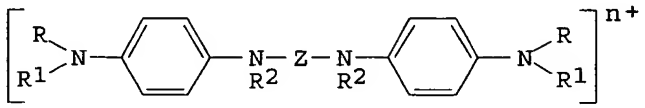
RN 133710-71-1 HCAPLUS
CN 3H-Indolium, 5-(carboxymethyl)-2-[3-[5-(carboxymethyl)-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-, inner salt (9CI) (CA INDEX NAME)



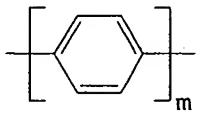
L34 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:448242 HCAPLUS
DOCUMENT NUMBER: 111:48242
TITLE: Optical recording medium containing an ammonium compound
INVENTOR(S): Ota, Masabumi; Sato, Tsutomu
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63299989	A2	19881207	JP 1987-133424	19870530 <--
PRIORITY APPLN. INFO.:			JP 1987-133424	19870530

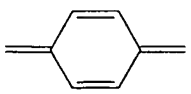
OTHER SOURCE(S): MARPAT 111:48242
GI



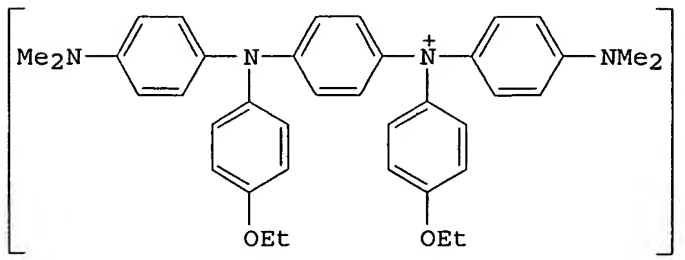
I



II



III



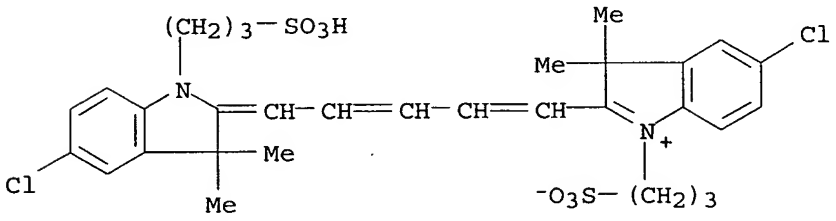
IV

AB Optical recording material has a thin organic recording layer which contains a compound I [R, R1 = H, lower alkyl; R2 = (substituted) aromatic ring; Z = II, III (when n = 2); X- = anion; m = 1, 2]. The material has high stabilities against light and heat for reading information and has high recording sensitivity. Thus, a poly(Me methacrylate) disk plate was spin-coated with an MEK solution of IV to form a 1.2 μm thick recording layer. The disk was recorded information by a 833 nm semiconductor laser operated with a power of 4.2 mW, a frequency of 0.5 MHz, and a linear scanning rate of 1.5 m/s to show a carrier to noise (C/N) ratio of 46 dB in rerecording. A forced irradiation test by 50-h illumination of the disk with a 54,000-lx W lamp showed only a small decrease in C/N ratio.

IT **121541-29-5**
RL: USES (Uses)
(**dye**, optical recording material containing ammonium compound and)

RN 121541-29-5 HCAPLUS

CN 3H-Indolium, 5-chloro-2-[5-[5-chloro-1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



L34 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:640839 HCAPLUS
DOCUMENT NUMBER: 109:240839
TITLE: Heat-mode optical recording medium containing silicate and **dye**
INVENTOR(S): Nanba, Noriyoshi; Yoshida, Yasuki
PATENT ASSIGNEE(S): TDK Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63102987	A2	19880507	JP 1986-247240	19861017 <--
PRIORITY APPLN. INFO.:			JP 1986-247240	19861017

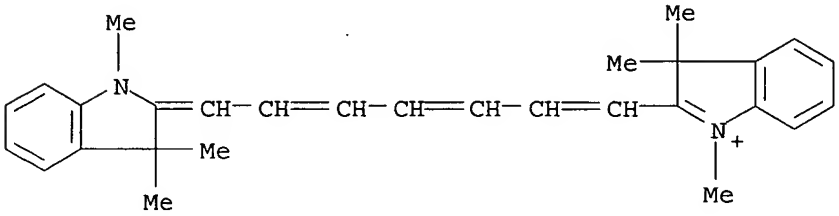
AB A heat-mode optical recording medium is composed of a support bearing a recording layer which contains a Si-containing compound and a **dye**. The medium has high sensitivity for pit formation and high carrier to noise (C/N) ratio for rerecording. Thus, a poly(Me methacrylate) resin pregrooved disk was coated with a colloidal suspension containing Et orthosilicic acid 3.8, EtOH 5.3, HCl (5 weight% aqueous solution) 1.8, and a complex comprising 1,3,3,1',3',3'-hexatrimethylindotricarbocyanine and bis-trichlorophenyldithiol Ni in cyclohexane 2.2% solution 100 weight parts to

form a recording layer with a thickness of 0.06 μm which. The recording plate was overlapped with a protective plate to forman optical disk. On the disk information was recorded using a 830-nm semiconductor laser operated at 10 mW and 2 MHz. The information was read out using the 830-nm laser operated at 0.8 mW to give a C/N ratio of 52 dB vs. 45 dB given by a control where the **dye** was incorporated without the Si compound

IT **47676-39-1D**, bis-trichlorophenyldithiol-Ni complex salt
RL: USES (Uses)
(**dye**, optical recording material containing)

RN 47676-39-1 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:560675 HCAPLUS

DOCUMENT NUMBER: 109:160675

TITLE: Optical information recording material containing polymethine **dye** and phenylenediamine stabilizer

INVENTOR(S): Sato, Tsutomu; Sakaeda, Tatsuya; Ichinose, Keiko

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62193891	A2	19870826	JP 1986-33804	19860220 <--

PRIORITY APPLN. INFO.: JP 1986-33804 19860220

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

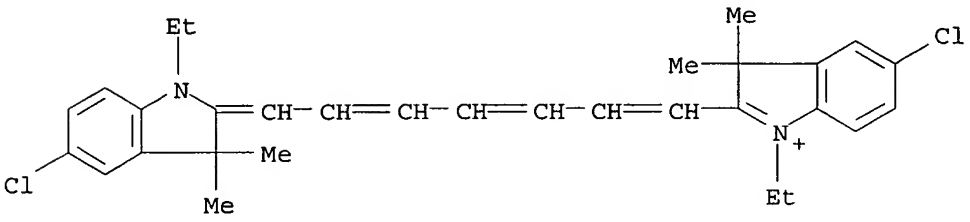
AB An optical recording medium has a polymethine **dye**-based recording layer containing a phenylenediamine derivative I [R1-4 = H (un)substituted alkyl; A = Q, Q1 when m = 2, the aromatic ring may be substituted with lower alkyl, lower alkoxy, halo, OH; X = metal complex; m = 1, 2; n = 1, 2] directly or via an intermediate layer on a substrate and optionally a protective layer. The medium is useful for laser recording systems and has high fastness against exposure to ambient light. Thus, a 90:10 mixture of II and III in ClCH2CH2Cl was spin-coated on a PMMA

substrate to form a 700 Å-recording layer which was irradiated with a 790 nm-semiconductor laser beam at a recording frequency of 0.5 MHz and a scanning rate of 1.5 m/s to show good carrier-to-noise ratio and light resistance.

IT **95478-26-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(optical recording medium using, phenylenediamine derivative-type stabilizers for)

RN 95478-26-5 HCAPLUS

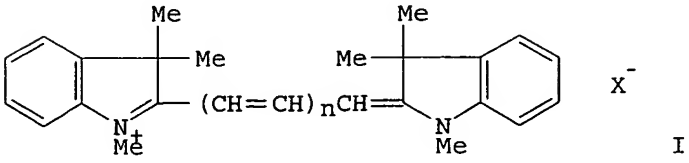
CN 3H-Indolium, 5-chloro-2-[7-(5-chloro-1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1-ethyl-3,3-dimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:76116 HCAPLUS
DOCUMENT NUMBER: 106:76116
TITLE: Electrophotographic recording material
INVENTOR(S): Franke, Werner; Brahm, Richard
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 22 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3513747	A1	19861023	DE 1985-3513747	19850417 <--
EP 201725	A2	19861120	EP 1986-104860	19860409 <--
EP 201725	A3	19880803		
EP 201725	B1	19920318		
R: DE, FR, GB, NL				
US 4681827	A	19870721	US 1986-852157	19860415 <--
JP 61241764	A2	19861028	JP 1986-86207	19860416 <--

PRIORITY APPLN. INFO.: DE 1985-3513747 A 19850417
OTHER SOURCE(S): MARPAT 106:76116
GI



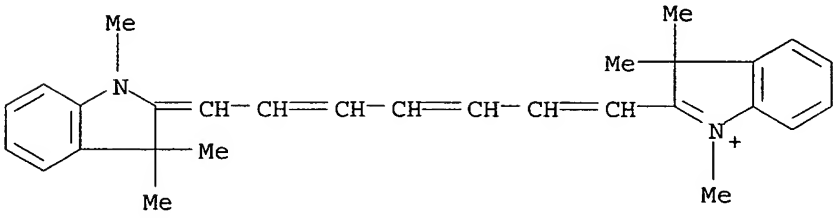
I

AB Electrophotog. photoreceptors sensitive to light sources emitting in the near IR and/or the boundary of the visible to the IR region are composed of an elec. conductive support and ≥1 photoconductive layer containing an organic photoconductor, a **dye** sensitizer of the formula I (n = 2, 3; X = anion) possessing sensitization between 650 and 840 nm, a binder, and the usual additives. A surface-brushed Al support was coated with a composition containing I (n = 3; X = anion), Screpset 540, 2,5-bis(4'-diethylaminophenyl)-1,3,4-oxadiazole, and a solvent mixture and dried to give a layer sensitive to .ltorsim.850 nm with maximum at 780 nm. The material could be processed under a green darkroom light.

IT **47676-39-1D**, salts **48221-03-0D**, salts
RL: USES (Uses)
(electrophotog. spectral sensitizers)

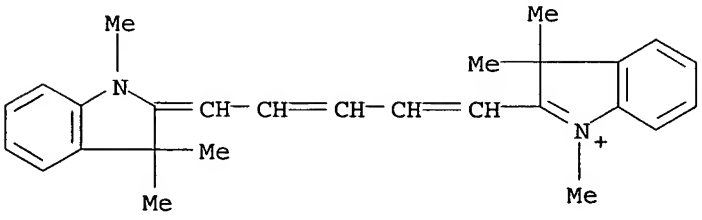
RN 47676-39-1 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



RN 48221-03-0 HCAPLUS

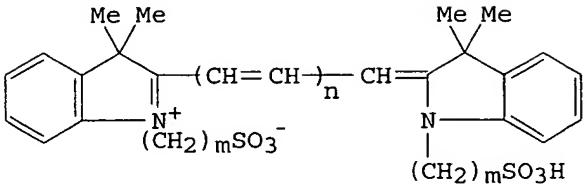
CN 3H-Indolium, 2-[5-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:638094 HCAPLUS
DOCUMENT NUMBER: 101:238094
TITLE: Electrophotographic photosensitive material
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59022053	A2	19840204	JP 1982-131807	19820728 <--

PRIORITY APPLN. INFO.: JP 1982-131807 19820728
GI

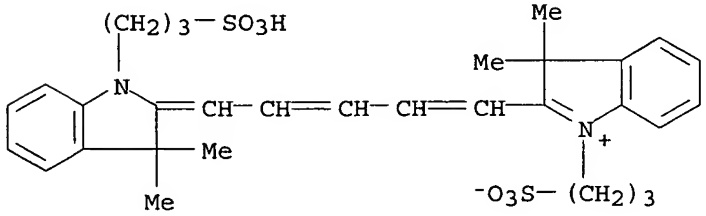


I

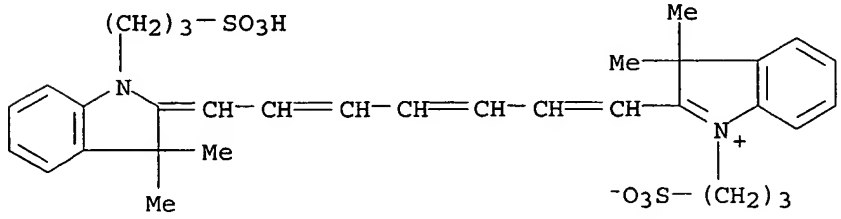
AB An electrophotog. photosensitive material having a high sensitivity in the visible and near-IR wavelength regions is described whose conductive substrate is provided with a photoconductive layer containing photoconductive ZnO and a sensitizing **dye** (I; n = 2 or 3; and m = 1, 2, or 3). Thus, an Al foil was coated with a composition containing ZnO and I (n = 2; m = 3) to give an electrophotog. plate having a sensitivity maximum at .apprx.670 nm.

IT **93374-19-7 93374-20-0 93374-21-1**
RL: USES (Uses)
(electrophotog. photoconductive zinc oxide sensitized by)

RN 93374-19-7 HCAPLUS
CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)

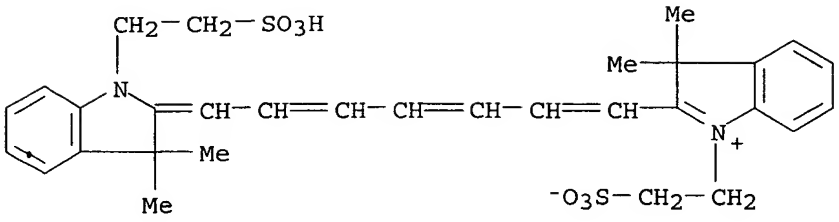


RN 93374-20-0 HCAPLUS
CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 93374-21-1 HCAPLUS
CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(2-sulfoethyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(2-sulfoethyl)-, inner salt

(9CI) (CA INDEX NAME)



L34 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:541537 HCAPLUS
DOCUMENT NUMBER: 99:141537
TITLE: Aromatic aldehyde preparation by reaction of selected aromatic compounds with formamidine acetate and an organic acid anhydride
INVENTOR(S): Petersen, Wallace C.
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

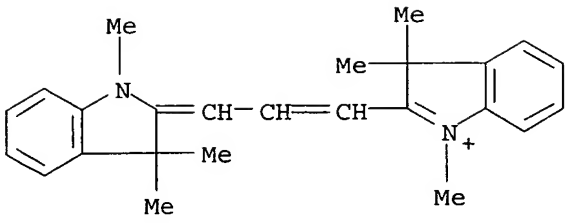
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4394314	A	19830719	US 1981-256734	19810423 <--
PRIORITY APPLN. INFO.:			US 1981-256734	19810423

OTHER SOURCE(S): MARPAT 99:141537

AB Aromatic and heterocyclic compds. (RH), e.g. N,N-dialkylanilines, pyrazoles, pyrroles, anthracenes, and indoles, react with H2NCH:NH2+ AcO- (I) [3473-63-0] and an acid anhydride to form RmCH(NHCOCR13)3-m (R1 = H or F; m = 1, 2, or 3) which, when m = 1, can be hydrolyzed to RCHO. The reaction of RH with I and acid anhydride can also be used to prepare triarylmethanes and **dyes**, e.g. methines and polymethines. Thus, 14.9 g Et2NPh [91-66-7], 100 mL MePh, 11 g I, and 25 g Ac2O [108-24-7] were stirred overnight at room temperature under N to give p-Et2NC6H4CH(NHAc)2 (II) [87317-75-7] in 83% yield. Addition of 19 g II to 500 mL H2O containing 25 mL concentrated HCl, heating at 50° for 2h, and treatment with 30 mL aqueous 30% NaOH gave p-Et2NC6H4CHO [120-21-8] in 93.2% yield.

IT **20766-56-7P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 20766-56-7 HCAPLUS
CN 3H-Indolium, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:152897 HCAPLUS
DOCUMENT NUMBER: 96:152897
TITLE: Fixing of tetra(hydrocarbyl)borate salt imaging systems
INVENTOR(S): Tiers, George V. D.; Aasen, Steven M.; Dalzell, Rex J.; Goettert, Edward J.; Holmes, Brian N.
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
SOURCE: Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 40978	A1	19811202	EP 1981-302298	19810522 <--
EP 40978	B1	19840801		
R: BE, CH, DE, FR, GB, IT, SE				
US 4343891	A	19820810	US 1980-152615	19800523 <--
CA 1166062	A1	19840424	CA 1981-375876	19810421 <--
AU 8170954	A1	19811126	AU 1981-70954	19810522 <--
AU 550089	B2	19860306		
JP 57019737	A2	19820202	JP 1981-77879	19810522 <--
JP 01039573	B4	19890822		
BR 8103192	A	19820209	BR 1981-3192	19810522 <--
ZA 8103472	A	19820728	ZA 1981-3472	19810522 <--

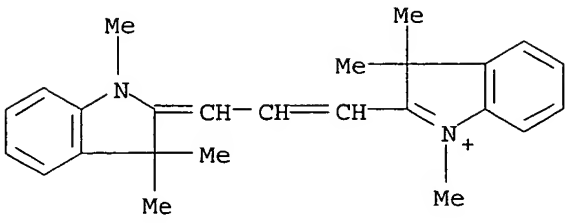
PRIORITY APPLN. INFO.: US 1980-152615 A 19800523

AB Fixing of an imagewise exposed imaging system based on tetra(hydrocarbonyl)borate salt (I) comprises conversion of I into a compound having <4 C-B bonds. Thus, a matted paper support was coated with a composition containing poly(vinyl acetate) (10% solids in a MeCOEt-PhMe mixture) 5g, diphenyliodonium tetraphenylborate 25, allyltriphenylphosphonium tetraphenylborate 28, a cyan **dye** 14, a yellow **dye** 5, and a magenta **dye** 2 mg, dried, imagewise exposed in a 500 W slide projector for 2 min, fixed in a solution containing H2O, MeOH, and phosphotungstic acid for 5 min, and washed in H2O for 5 min to give a color print which was exposed to ambient light for several weeks without showing any deterioration in quality.

IT **20766-56-7**
RL: USES (Uses)
(photoimaging composition containing tetrahydrocarbonylborate salt and, fixing solution for)

RN 20766-56-7 HCAPLUS
CN 3H-Indolium, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-

propenyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:152896 HCAPLUS
DOCUMENT NUMBER: 96:152896
TITLE: Imaging systems with tetra(aliphatic)borate salts
INVENTOR(S): Dalzell, Rex J.; Goettert, Edward J.; Tiers, George V. D.
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
SOURCE: Eur. Pat. Appl., 43 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 40977	A1	19811202	EP 1981-302296	19810522 <--
EP 40977	B1	19850123		
R: BE, CH, DE, FR, GB, IT, SE				
US 4307182	A	19811222	US 1980-152601	19800523 <--
CA 1144802	A1	19830419	CA 1981-375643	19810416 <--
JP 57019734	A2	19820202	JP 1981-77878	19810522 <--
JP 01051174	B4	19891101		
BR 8103191	A	19820209	BR 1981-3191	19810522 <--
ZA 8103471	A	19820728	ZA 1981-3471	19810522 <--
AU 545890	B2	19850808	AU 1981-70955	19810522 <--
AU 8170955	A1	19820513		

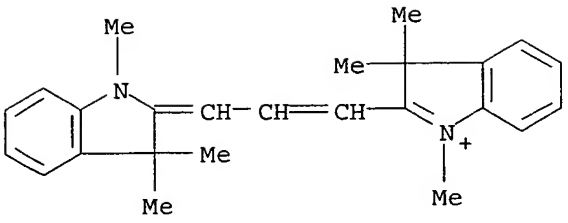
PRIORITY APPLN. INFO.: US 1980-152601 A 19800523

AB A photoimaging element with improved speed comprises a polymeric binder, a cationic **dye** and a tetra(aliphatic)borate having the formula [BRR1R2R3]-X+ (R,R1,R2,R3 = aliphatic group; X+ = any cation except H+). Thus, a polyester support was coated with a solution (10% solids) containing Indolenine Red 50, tetraethylammonium tetramethylborate 100 mg, and poly(vinyl acetate) 5 mL in a 3:1 MeCOEt:PhMe mixture, dried, imagewise exposed and fixed in HCl vapor for 2 min to give an image.

IT **20766-56-7**
RL: USES (Uses)
(photoimaging composition containing tetraaliph. borate salt and)

RN 20766-56-7 HCAPLUS

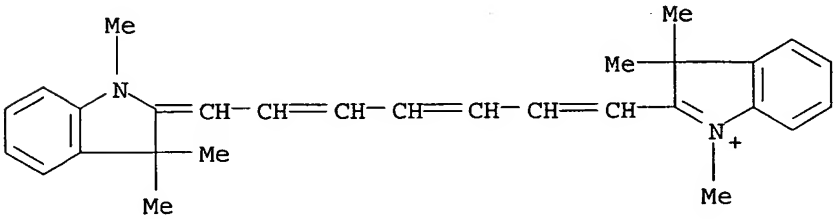
CN 3H-Indolium, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1979:112893 HCAPLUS
DOCUMENT NUMBER: 90:112893
TITLE: Infrared fluorescent molecule laser amplifiers and oscillators
INVENTOR(S): Limacher, Daniel
PATENT ASSIGNEE(S): Etat Francais Delegue Ministerial pour l'Armement, Fr.
SOURCE: Fr. Demande, 7 pp.
CODEN: FRXXBL
DOCUMENT TYPE: **Patent**
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2372528	A1	19780623	FR 1972-12114	19720406 <--
FR 2372528	B1	19790112		

PRIORITY APPLN. INFO.: FR 1972-12114 A 19720406
AB An IR fluorescent tricarbocyanine mol. laser amplifier and oscillator emits with a wavelength of 0.8-1 μm, optionally 0.85 μm, and is stimulated by the radiation of a diode with GaAs and AlAs electrodes. Optionally, the fluorescent material is hexamethylindotricarbocyanine, dissolved in a liquid, gel or synthetic organic material. The laser emits with good efficiency and slight divergency in the near IR.
IT **47676-39-1**
RL: DEV (Device component use); USES (Uses)
(lasers, IR)
RN 47676-39-1 HCAPLUS
CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:24382 HCAPLUS
DOCUMENT NUMBER: 82:24382
TITLE: Foil- or sheet-form recording material for electron

beams, and reduced styryl-cyanine **dyes** for this material

INVENTOR(S): Tiers, George V. D.; Wiese, Joseph A.
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co.
SOURCE: Ger. Offen., 50 pp.
CODEN: GWXXBX

DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

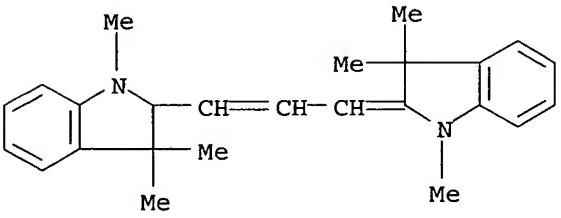
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2415751	A1	19741017	DE 1974-2415751	19740401 <--
US 3916069	A	19751028	US 1973-347193	19730402 <--
JP 49131138	A2	19741216	JP 1974-35733	19740401 <--
JP 60038694	B4	19850902		
FR 2241099	A1	19750314	FR 1974-11591	19740401 <--
AU 7467384	A1	19751002	AU 1974-67384	19740401 <--
GB 1463625	A	19770202	GB 1974-14439	19740401 <--
IT 1004440	A	19760710	IT 1974-49953	19740402 <--

PRIORITY APPLN. INFO.: US 1973-347193 A 19730402

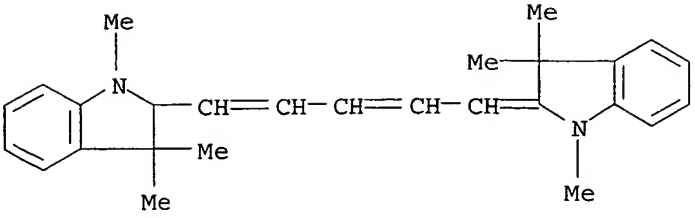
AB By reduction of the heterocylic component with N:C bond in styryl or cyanine **dyes** (by NaBH4 at 15-30°) to the dihydro base, leuco compds. are obtained which in the presence of a halogenated organic compound are reoxidized to the **dye** by an electron beam. Layers with such leuco **dyes** in a polymeric binder, which may also supply the halogen, keep well at room temperature in the absence of radiation <400 nm and yield directly visible records of electron beam exposure. Thus, a 5% aqueous solution of the purple 2-(4-dimethylaminostyryl)-1,3,3-trimethylindolinium chloride was mixed with CH_2Cl_2 and decolorized by dropwise addition of 10% aqueous $NaBH_4$. The indolenine base was isolated from the CH_2Cl_2 phase and added to 100 parts of a 10% solution of Bakelite VYHH (vinyl chloride-acetate 87:13 copolymer) in a 3:1 MeCOEt-PhMe mixture A coating on a transparent elec. conductive polyester film turned purple on exposure to a 20 kV,3μA electron beam.

IT **3571-35-5 54269-06-6**
RL: USES (Uses)
(recording layers containing, electron-beam)

RN 3571-35-5 HCAPLUS
CN 1H-Indole, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-2,3-dihydro-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



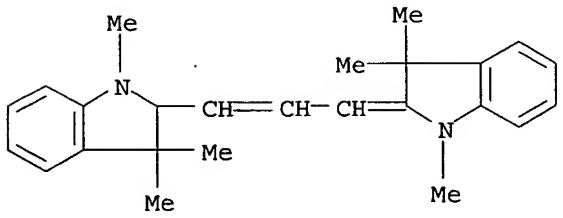
RN 54269-06-6 HCAPLUS
CN 1H-Indole, 2-[5-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3-pentadienyl]-2,3-dihydro-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



L34 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:28168 HCAPLUS
DOCUMENT NUMBER: 64:28168
ORIGINAL REFERENCE NO.: 64:5262c-d
TITLE: Brightly colored, solid resins fast to light
INVENTOR(S): Laptev, N. G.; Meshchaninova, Z. S.
PATENT ASSIGNEE(S): State Scientific-Research Institute of Organic Intermediates and Dyes
SOURCE From: Byul. Izobret. i Tovarnykh Znakov 1965(19), 69..
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 175223		19650921	SU	19640411 <--
PRIORITY APPLN. INFO.:			SU	19640411

AB The title resins are prepared by condensing amino-containing compds. with HCHO and a **dye.** To obtain resins fast to light (pigments), polymethine **dyes** are added during the condensation.
IT **3571-35-5**, Indoline, 2,2'-(1-propen-1-yl-3-ylidene)bis[1,3,3-trimethyl-
(melamine-HCHO reaction product dyeing with)
RN 3571-35-5 HCAPLUS
CN 1H-Indole, 2-[3-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1-propenyl]-2,3-dihydro-1,3,3-trimethyl- (9CI) (CA INDEX NAME)



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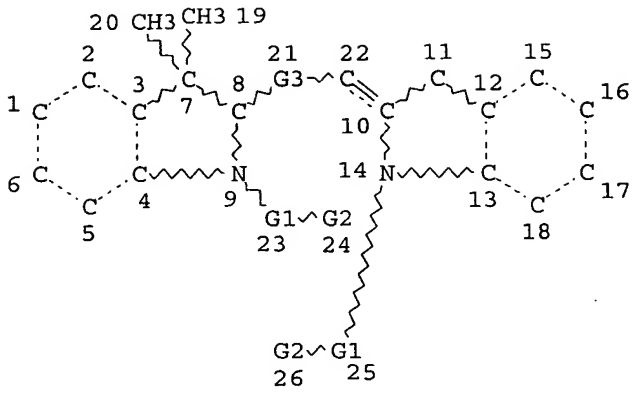
L3 STR



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@29 @30

CH≡CH
@31 32

CH≡CH
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@35 36

CH≡CH
37

CH≡CH
38

CH≡CH
39 @40

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VAR G3=29-8 30-22/31-8 34-22/35-8 40-22
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE
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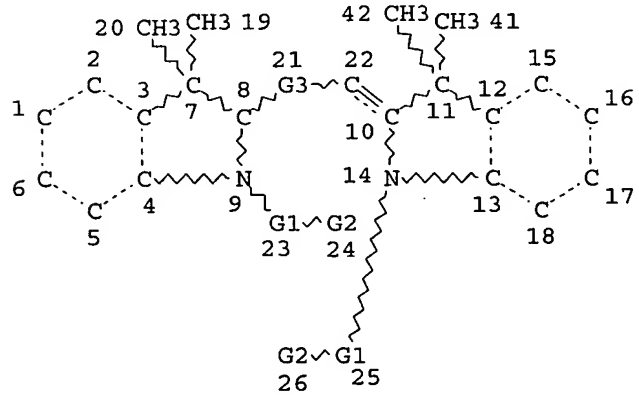
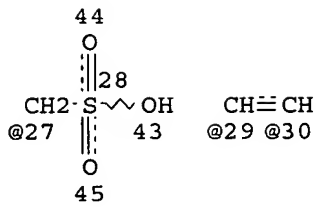
L16 STR





CH≡CH
@29 @30

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@31 32

CH≡CH
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CH≡CH
@35 36

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38

CH≡CH
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VAR G2=CH3/27

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  45

STEREO ATTRIBUTES: NONE
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L21         138 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20
L22         100 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21 AND PD=<APRIL 10, 1999
L23          84 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND DYE
L25           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23 AND PEPTID?
L26        1319 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L20
L27        1984 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26
L28        1518 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 AND PD=<APRIL 10, 1999
L29           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND  (PROTEIN OR PEPTID?)(
                L)DYE
L30           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 NOT L25
L31       13567 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CONTRAST AGENT?/CV OR IMAGING
                AGENT?/CV OR (CONTRAST OR IMAGING)(2A)AGENT?
L33          82 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L23 NOT (L25 OR L30)
L34          24 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND PATENT/DT
L35           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L28 AND L31) NOT (L25 OR L30
                OR L34)


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=>

=> d ibib abs hitstr l35 1-3

L35  ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         1998:794976  HCAPLUS
DOCUMENT NUMBER:          130:20606
TITLE:                    Sonodynamic therapy using an ultrasound sensitizer
                          compound
INVENTOR(S):              Alfheim, Jan Alan; Henrichs, Paul Mark; Hohenschuh,
                          Eric Paul; Johannesen, Edvin Wilhelm; Sanderson,
                          William Anthony; Snow, Robert Allen
PATENT ASSIGNEE(S):       Nycomed Imaging AS, Norway
SOURCE:                   PCT Int. Appl., 192 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE       APPLICATION NO.         DATE
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     WO 9852609            A1    19981126   WO 1998-GB1444          19980519 <--
         W:  AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK,
             EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP,
             KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
             US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9874438	A1	19981211	AU 1998-74438	19980519 <--
EP 979104	A1	20000216	EP 1998-921658	19980519
EP 979104	B1	20040915		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001525845	T2	20011211	JP 1998-550117	19980519
AT 275971	E	20041015	AT 1998-921658	19980519
US 6498945	B1	20021224	US 1999-435616	19991108

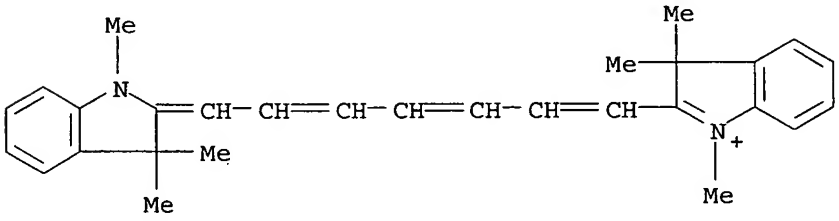
PRIORITY APPLN. INFO.:	GB 1997-10049	A 19970519
	US 1997-48487P	P 19970603
	WO 1998-GB1444	W 19980519

AB A method is provided for treatment of the human or animal body by sonodynamic therapy in which a sensitizer agent is administered and the body is exposed to ultrasound to achieve a cytopathogenic effect at a site therein, wherein the sensitizer agent is a physiol. tolerable substance which is capable of enhancing the cytopathogenic efficacy of said sonodynamic therapy. Preferably, the sensitizer agent is a water-soluble polymer compound or a conjugate thereof. Preparation of compds. of the invention is described.

IT **19764-96-6**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ultrasound sensitizer compds. for sonodynamic therapy)

RN 19764-96-6 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



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REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1997:372033 HCAPLUS
DOCUMENT NUMBER:	126:347278
TITLE:	**Contrast agent** for near-infrared diagnostics
INVENTOR(S):	Licha, Kai; Riefke, Bjoern; Weitschies, Werner; Heldmann, Dieter; Sudmann, Violetta
PATENT ASSIGNEE(S):	Institut fuer Diagnostikforschung Gmbh an der Freien Universitaet Berlin, Germany
SOURCE:	Ger. Offen., 9 pp. CODEN: GWXXBX
DOCUMENT TYPE:	Patent

LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19539409	A1	19970417	DE 1995-19539409	19951011 <--
DE 19539409	C2	19990218		
CA 2233995	AA	19970417	CA 1996-2233995	19960926 <--
WO 9713490	A2	19970417	WO 1996-DE1878	19960926 <--
WO 9713490	A3	19971023		
W: AU, CA, CN, HU, JP, KR, NO, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9715892	A1	19970430	AU 1997-15892	19960926 <--
AU 711266	B2	19991007		
EP 854732	A2	19980729	EP 1996-945477	19960926 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1199341	A	19981118	CN 1996-197558	19960926 <--
CN 1075951	B	20011212		
JP 11504656	T2	19990427	JP 1996-514616	19960926
ZA 9608229	A	19970514	ZA 1996-8229	19960930 <--
IL 119365	A1	20000726	IL 1996-119365	19961007
NO 9801586	A	19980407	NO 1998-1586	19980407 <--
US 2002022004	A1	20020221	US 2001-962788	20010925

PRIORITY APPLN. INFO.:	DE 1995-19539409	A	19951011
	WO 1996-DE1878	W	19960926
	US 1998-51511	A3	19980409

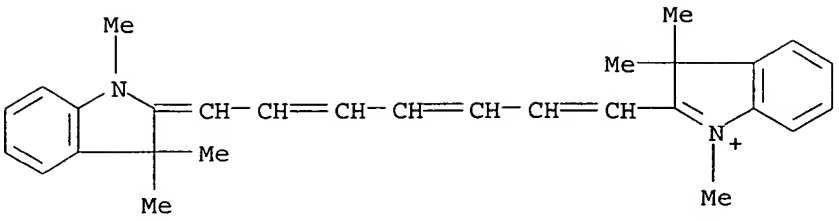
OTHER SOURCE(S): MARPAT 126:347278

AB The invention involves a polymethine dyestuff loaded into a colloidal system combining photophys. and pharmacol. properties which can be applied as a **contrast agent** in fluorescence and transillumination diagnostics in the near-IR region of the spectrum. Thus, a 1,1',3,3,3',3'-hexamethylindotricarbocyanine iodide suspension is made with 7.6 mg hexamethylindotricarbocyanine iodide and 0.2 g of a lactic acid-glycolic acid copolymer (mol. weight approx. 15000 g/mol) dissolved in 2.5 mL methylene chloride. The solution is stirred strongly for while being added to a 20 mL solution of 2% gelatin which has been autoclaved at 121°C for 15 min. Stirring continues for 45 min, and the resulting suspension is divided into 5 mL portions into 20-mL glass tubes, frozen in liquid nitrogen and freeze-dried. After resuspension in 5 mL of 0.9% salt solution the suspension contains approx. 1010 dye-containing particles 1-10 μm in size.

IT **19764-96-6**, 1,1',3,3,3',3'-Hexamethylindotricarbocyanine iodide
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polymethine **contrast agent** for near-IR diagnostics)

RN 19764-96-6 HCAPLUS

CN 3H-Indolium, 2-[7-(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)-1,3,5-heptatrienyl]-1,3,3-trimethyl-, iodide (9CI) (CA INDEX NAME)



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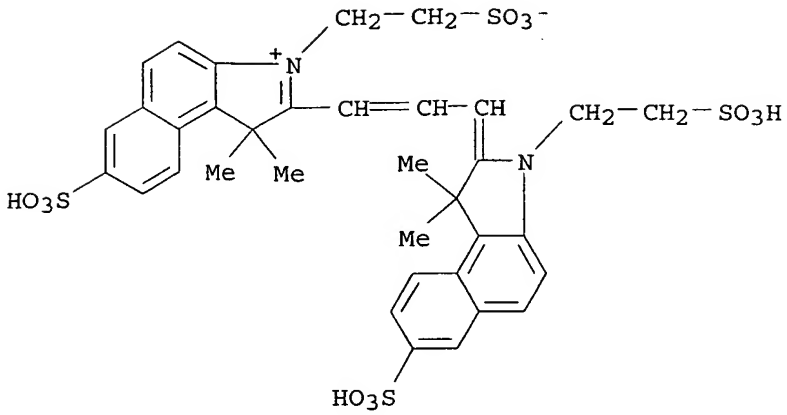
L35 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:998032 HCAPLUS
DOCUMENT NUMBER: 124:131425
TITLE: High-contrast silver halide photographic material.
INVENTOR(S): Dale, Allison H.; Piggin, Roger H.; Hallett, Richard A.; McIntyre, Paul R.
PATENT ASSIGNEE(S): Kodak Ltd., UK; Eastman Kodak Co.
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
EP 682288	A1	19951115	EP 1995-200941		19950413	<--
EP 682288	B1	20010627				
R: BE, CH, DE, FR, GB, IT, LI, NL						
JP 08043974	A2	19960216	JP 1995-89367		19950414	<--
US 5589318	A	19961231	US 1996-583198		19960104	<--
PRIORITY APPLN. INFO.:			GB 1994-7599	A	19940416	
			GB 1994-25802	A	19941221	
			US 1995-400155	B1	19950307	

OTHER SOURCE(S): MARPAT 124:131425
AB A high-contrast photog. material comprises a support bearing a silver halide emulsion layer, containing in the emulsion layer or an adjacent hydrophilic colloid layer, a hydrazide nucleating agent characterized in that the emulsion layer comprises silver halide grains which are spectrally sensitized and silver halide grains which are not spectrally sensitized, the sensitizing dye(s) being chosen so that it does (they do) not become desorbed from said spectrally sensitized grains.
IT **172972-82-6**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(spectral sensitizer for high-contrast silver halide photog. materials)
RN 172972-82-6 HCAPLUS
CN 1H-Benz[e]indolium, 2-[3-[1,3-dihydro-1,1-dimethyl-7-sulfo-3-(2-sulfoethyl)-2H-benz[e]indol-2-ylidene]-1-propenyl]-1,1-dimethyl-7-sulfo-3-(2-sulfoethyl)-, inner salt, monosodium salt (9CI) (CA INDEX NAME)



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L16            STR
L17         1109 SEA SUB=L5 SSS FUL L16
L19            SCREEN 2127 OR 2050 OR 2049 OR 2043 OR 1842
L20          302 SEA SUB=L17 SSS FUL L16 NOT L19

     FILE 'HCAPLUS' ENTERED AT 17:07:27 ON 21 FEB 2006
L21          138 SEA ABB=ON  PLU=ON  L20
L22          100 SEA ABB=ON  PLU=ON  L21 AND PD=<APRIL 10, 1999
L23           84 SEA ABB=ON  PLU=ON  L22 AND DYE
L24            0 SEA ABB=ON  PLU=ON  L23 AND PEPTIDE(L)DYE
L25            2 SEA ABB=ON  PLU=ON  L23 AND PEPTID?
                 D STAT QUE
                 D IBIB ABS HITSTR L25 1-2

     FILE 'REGISTRY' ENTERED AT 17:07:55 ON 21 FEB 2006
L26         1319 SEA ABB=ON  PLU=ON  L5 NOT L20

     FILE 'HCAPLUS' ENTERED AT 17:08:19 ON 21 FEB 2006
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L28         1518 SEA ABB=ON  PLU=ON  L27 AND PD=<APRIL 10, 1999
L29            9 SEA ABB=ON  PLU=ON  L28 AND  (PROTEIN OR PEPTID?)(L)DYE
L30            7 SEA ABB=ON  PLU=ON  L29 NOT L25
                 D STAT QUE L30
                 D IBIB ABS HITSTR L30 1-7
L33           82 SEA ABB=ON  PLU=ON  L23 NOT (L25 OR L30)
L34           24 SEA ABB=ON  PLU=ON  L33 AND PATENT/DT
                 D STAT QUE L34
                 D IBIB ABS HITSTR L34 1-24
L35            3 SEA ABB=ON  PLU=ON  (L28 AND L31) NOT (L25 OR L30 OR L34)
                 D STAT QUE L35
                 D IBIB ABS HITSTR L35 1-3


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   20 FEB 2006  HIGHEST RN 874742-76-4
     DICTIONARY FILE UPDATES:  20 FEB 2006  HIGHEST RN 874742-76-4

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

       Please note that search-term pricing does apply when
       conducting SmartSELECT searches.

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     *                                                          *
     * The CA roles and document type information have been removed from *
     * the IDE default display format and the ED field has been added,   *
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* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
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Structure search iteration limits have been increased. See HELP SLIMITS for details.

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http://www.cas.org/ONLINE/UG/regprops.html

FILE HCAPLUS

FILE COVERS 1907 - 21 Feb 2006 VOL 144 ISS 9
FILE LAST UPDATED: 20 Feb 2006 (20060220/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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